

User's manual

SCENARIO MANAGEMENT

Doc-3366-2

DOC-3366-2, Current Version

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	main issue	update
chapter 1		
chapter 2		
chapter 3		
chapter 4		
chapter 5		
chapter 6		
chapter 7		

new: The corresponding chapters are new or completely revised.
corr.: Passages of the corresponding chapter were corrected; see modification bars.
add.: Passages of the corresponding chapter were added; see modification bars.

This manual refers to following software versions

Apollo Scenario Management	Release 1.1
Apollo	Release 1.9

Document History

Modifications, which result in a new version, are indicated by a vertical bar.



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Revision sheet

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Please correct the following points in this documentation (**DOC-3366-2**):

page

wrong

correct

Contents

1 Introduction.....	1-1
1.1 How this manual is organized	1-2
1.2 Styles and symbols.....	1-2
2 Summary	2-1
2.1 General.....	2-2
2.2 Terminology	2-3
2.3 Samples of applications	2-4
2.3.1 Startup problems (relative time)	2-4
2.3.2 Begin and end of a shift (absolute time)	2-4
2.4 Realization	2-4
3 Installation	3-1
3.1 System requirements	3-2
3.2 Requirements	3-2
3.3 Used ports	3-3
3.4 Installation of the Scenario Management software	3-4
3.4.1 Common settings.....	3-4
3.4.2 Server side installation (Scenario Executor)	3-8
3.4.3 Client side installation (Scenario Configurator)	3-16
4 The Scenario Configurator.....	4-1
4.1 Launching the Scenario Configurator.....	4-2
5 The Scenario Editor	5-1
5.1 Creating a new scenario.....	5-2
5.2 Editing a scenario	5-2
5.2.1 Actions.....	5-5
5.2.2 Trigger	5-24
5.2.3 Timeline	5-31
6 Use cases	6-1
6.1 Overview.....	6-2
6.2 Use case: Operation mode of a display wall.....	6-4
6.2.1 Day shift	6-5
6.2.2 Night shift	6-6
6.2.3 Switch Projector lamp off	6-7

6.3 Use case: change active lamp.....	6-8
6.3.1 Upper lamp switching	6-8
6.3.2 Lower Lamp Switching	6-9
6.4 Use case: scan viewer	6-10
6.5 Use case: automated alarm response	6-11
7 Troubleshooting	7-1
7.1 How to check for the ScenarioApiServer	7-2
7.2 How to remove a Java Web Start Application.....	7-2
7.3 Tomcat service setting: Allow service to interact with the desktop	7-4
7.4 Log files.....	7-4
7.5 Hot Line	7-5

1 Introduction

This chapter explains the structure of the manual itself and the used typographic styles and symbols.

1.1 How this manual is organized

This section explains the structure of the manual itself and the used typographic styles and symbols. Safety information is provided concerning the operation of computer systems from BARCO.

- **Introduction**
gives an overview about the used styles and symbols.
- **Summary**
gives an overview about the functionality of the Scenario Management software
- **Installation**
shows system requirements and explains the necessary steps and components of the installation
- **Scenario Configurator**
introduces the Scenario Configurator and explains its user interface
- **Scenario Editor**
explains the user interface of the Scenario Editor and the shows how to edit scenarios
- **Use cases**
gives some samples of scenarios
- **Hotline**
informs where to get support in case problems occur.

Chapters, pages, figures and tables are numbered separately. Chapters are indicated by a »point syntax«, e. g. **4.2.3**, pages by a »dash syntax«, e. g. **2-1**, as figures and tables are, e. g. **figure 5-4**.

1.2 Styles and symbols

The typographic styles and the symbols used in this document have the following meaning:

Bold	Labels, menus and buttons are printed in Bold font.
Condensed	Links to both other chapters of this manual and to sites in the Internet are printed condensed . In the on-line version of this manual all hyperlinks appear teal .
Courier	Names of files and parts from programs are printed in the Courier font.
Courier bold	Inputs you are supposed to do from the keyboard are printed in Courier bold font.



The sheet icon indicates additional notes.



Next to this icon you find further information.



This arrow marks tips.



Next to this icon you find important notes.

2 Summary

This chapter gives an overview about the functionality of the Scenario Management software.

2.1 General

The Scenario Management software is based on the Apollo API. It is a mechanism to define and execute sequences of Apollo functions, thus providing a simple, end-user accessible way of programming the Apollo system.

These sequences of commands are called scenario.

Scenarios are defined by the user. The execution of the scenarios is triggered by events coming from various sources and received via the API (e.g. user actions, time of day, etc.).

To define scenarios, the Scenario Management software provides a configuration user interface.

The configuration user interfaces also allows to start/stop scenarios and to monitor the execution of the scenarios.

The user interface as front end (client side) of the Scenario Management software is called **Scenario Configurator**.

The back end (server side) is called Scenario Executor.

2.2 Terminology

A scenario consists of a list of actions, a list of triggers, and a schedule. The schedule is called **Timeline**. The scenario is an XML file saved on the **ScenarioApiServer**.

A scenario can be addressed by the scenario executor only if the scenario is **loaded**.

When a scenario is **loaded**, it can be **edited**: **actions** as well as **triggers** can be added or modified or removed, or the **timeline** can be modified.

A scenario can be **user controlled** (timeline set to manual) or **time-controlled** (time line different from manual).

In case of a user controlled scenario, starting the scenario requires clicking on the **Start** button in the Scenario Editor, cf. [The Scenario Editor](#). The scenario then runs as soon as it is triggered.

In case of a **time-controlled scenario**, starting the scenario happens at its startup time defined in the timeline. The scenario then runs as soon as it is triggered. (Manual intervention by clicking the **Start** button has no effect until the startup time defined in the timeline is the current time (but then of course it starts if the Start button has been clicked or not))

A scenario **stops** as soon as all commands of the list are executed (provided there is no loop which makes them start again).

It also **stops** in case its duration time has passed.

The user can stop it manually by clicking on the **Stop** button in the Scenario Editor, cf. [The Scenario Editor](#). To make it running again, the **Start** button has to be clicked. However it is mandatory that re-start happens during its **Duration** time, otherwise it won't have any effects.

The **Duration** time is the time where a scenario is sensitive for triggers. Duration time is an absolute time and prevents conflicts causing from e.g. system failures. If the server shuts down and is restarted, the scenario executor will resume the scenario only when it is still due to be active (duration time not over).

The execution of a scenario **pauses** when the current action in the list of actions is a **Pause** or **Wait** action, but the triggers will still remain active.

In case of **Pause**, execution of the actions is resumed as soon as a trigger fires.

In case of **Wait**, execution of the action is resumed as soon as the wait time defined has passed.

	User controlled scenario	Time controlled scenario
Loading	Operator (via user interface or via commandline)	
Starting	Start button	Schedule
Running	When started, and a trigger fires	When started, and a trigger fires
Duration time	Duration of one cycle	Defined in the timeline
Shut down time	When the once cycle is over	Defined in the timeline
Stopping	When one cycle is over, or when the stop button has been clicked (manual intervention).	Only when the duration time is over (if the active state of a scenario is still pending, it cannot be stopped manually)

2.3 Samples of applications

2.3.1 Startup problems (relative time)

Some applications require some time to initialize before the next action can start.

This problem can be solved by creating a scenario which allows the next action to take place only after some time the application has been launched.

2.3.2 Begin and end of a shift (absolute time)

The requirements during night may be different from the requirements during day with respect to active size of the wall and/or applications running on the wall.

These requirements can be met by a scenario which runs at a fixed time of the day (e.g. 6 PM) and which switches off parts of the wall, unloads the "day layout" and loads the "night layout". – In the morning, another scenario resets the control room into day operating status again.

2.4 Realization

The Scenario Management software is a kind of client to the Apollo API and is implemented in Java to be independent from the operating platform. Therefore it is mandatory that Apollo and Apollo API are installed on the server workstation of the Scenario Management back end, i.e. on the workstation of the Scenario Executor.

The user interface for defining scenario is a web start application delivered from the Apache Tomcat Server which hosts the Scenario API.

It can run on every machine where the Java runtime environment is installed.

3 Installation

3.1 System requirements



Since the Scenario Management software requires Apollo and Apollo API, the system requirements are the system requirements for Apollo.

3.2 Requirements

- Windows 2000 Service Pack 4 or later
- Internet Explorer 6.0 SP2 or later
- Windows Scripting Host 5 or later
- Hot Fixes and Customizations (according to Barco TASK-2k-09a for TransForm A controller)

- Windows XP Professional Service Pack 2 or later
- Internet Explorer 6.0 SP2 or later
- Windows Scripting Host 5 or later
- Hot Fixes and Customizations (according to Barco TASK-XP-09a for TransForm A controller or RTASK-XPDP-09 for TransForm A DualXeon)
- Barco Snmp RcAgent 1.6SR1 (for device control)

- Barco Windows driver suite 4.2 (for TransForm A controller)
- Funk Software Inc. Proxy Host 5.1 (for Cottus viewer), Gateway 5.1
- VNC 4.1.2 (for VNC viewer)
- TightVnc 1.2.9 (for VNC viewer)

- Microsoft Visio2000 or higher (for Apollo Configurator)
- Microsoft Visual Studio 6.0 SP4 (for software development)
- Windows Media Player 9

- Barco OCM 1.2 for OverView D projection modules



When running the viewers, please keep in mind that each instance of a viewer requires about 20MB to 30MB RAM. Upgrade your TransForm A controller accordingly!

You need administrative privileges to install the Apollo software. If the computer reboots during installation, users have to log in with administrative privileges after the reboot as well.



When installing, please stick to the following installation sequence: OS level first (Windows2000 WindowsXP), then system level (Windows Driver Suite, Barco RC Agent), finally application level (Apollo, RemotePointer, Screen Host)

3.3 Used ports

Apollo will use the following ports:

Application	ports
Control Room Bus	TCP/IP ports: 4570 and 4571
CottusViewer / Proxy Host	UDP port: 1505
CottusViewer /Gateway	UDP port: 2303
VncViewer / VncServer / TightVncServer	TCP/IP port: 5900
ProServer / ProViewer / RemotePointer	TCP/IP port: 4580
TCP/IP Command interface	TCP/IP port 4585
SnmpMgr	TCP/IP port 4701
RcAgent	TCP/IP port 4700
OCM	TCP/IP port 6063 and 4702



With Windows XP SP2, the firewall is automatically activated and all ports are closed! Make sure to open the above mentioned ports! Without being able to communicate, Apollo will not work!



**Please check also if an external firewall is installed. No matter what type of firewall: Apollo can only operate when the ports listed above are open.
Consult the user documentation about your firewall how to open the ports.**

3.4 Installation of the Scenario Management software



In case there is already a version of this software installed on the system, first de-install the old version: Select **Start|Control Panel|Add or Remove Programs|Barco Scenario Management**

3.4.1 Common settings

The following steps have to be performed on the server workstation as well as on the client workstation.

- Host configuration
- Modification of the power management settings

3.4.1.1 Host configuration

To adapt the host file, it is mandatory that you know the IP addresses of the ApolloApiServer and of the ScenarioApiServer.

In case you know the names of the workstation but not the IP addresses, you can find them out using the PING command:

- Select **Start|Run** and enter **CMD**.
- In the command prompt, enter the following command: **PING NameOfWorkstation**
- The ping commands return the IP address of the workstation:

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\ROAS>PING karclt-rozi0

Pinging karclt-rozi0.barco.com [150.158.180.220] with 32 bytes of data:

Reply from 150.158.180.220: bytes=32 time<1ms TTL=128
Reply from 150.158.180.220: bytes=32 time<1ms TTL=128
Reply from 150.158.180.220: bytes=32 time<1ms TTL=128
Reply from 150.158.180.220: bytes=32 time<1ms TTL=128

Ping statistics for 150.158.180.220:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\ROAS>

```



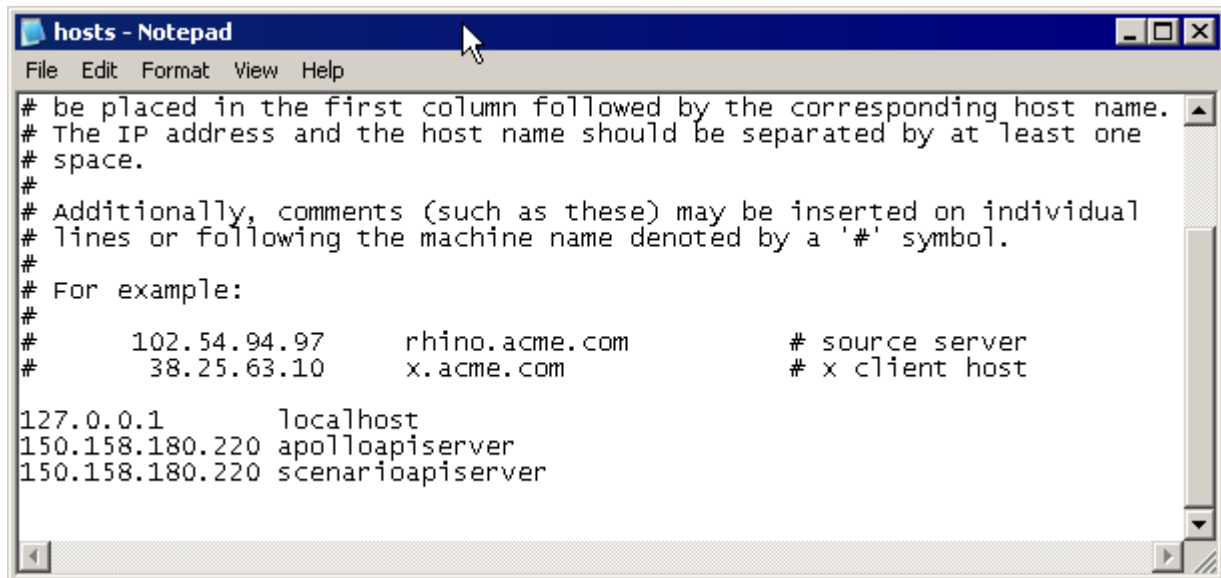
By means of the PING command, not only the IP address is returned, but you are also informed that the workstation is running and connected to the network.

To perform the host configuration

- navigate the folder **C:\Windows\System32\drivers\etc.**
- Use Notepad to edit the file hosts, and add the following lines:

IP Address apolloapiserver

IP Address scenarioapiserver



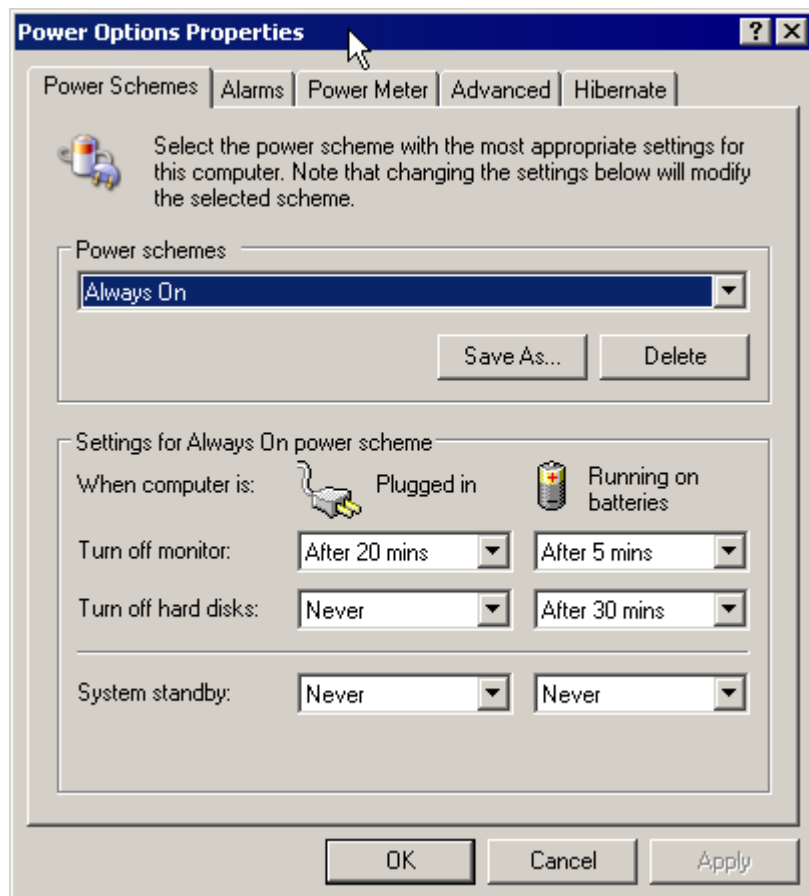
```
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97      rhino.acme.com    # source server
#       38.25.63.10      x.acme.com       # x client host

127.0.0.1      localhost
150.158.180.220 apolloapiserver
150.158.180.220 scenarioapiserver
```

3.4.1.2 Power management settings

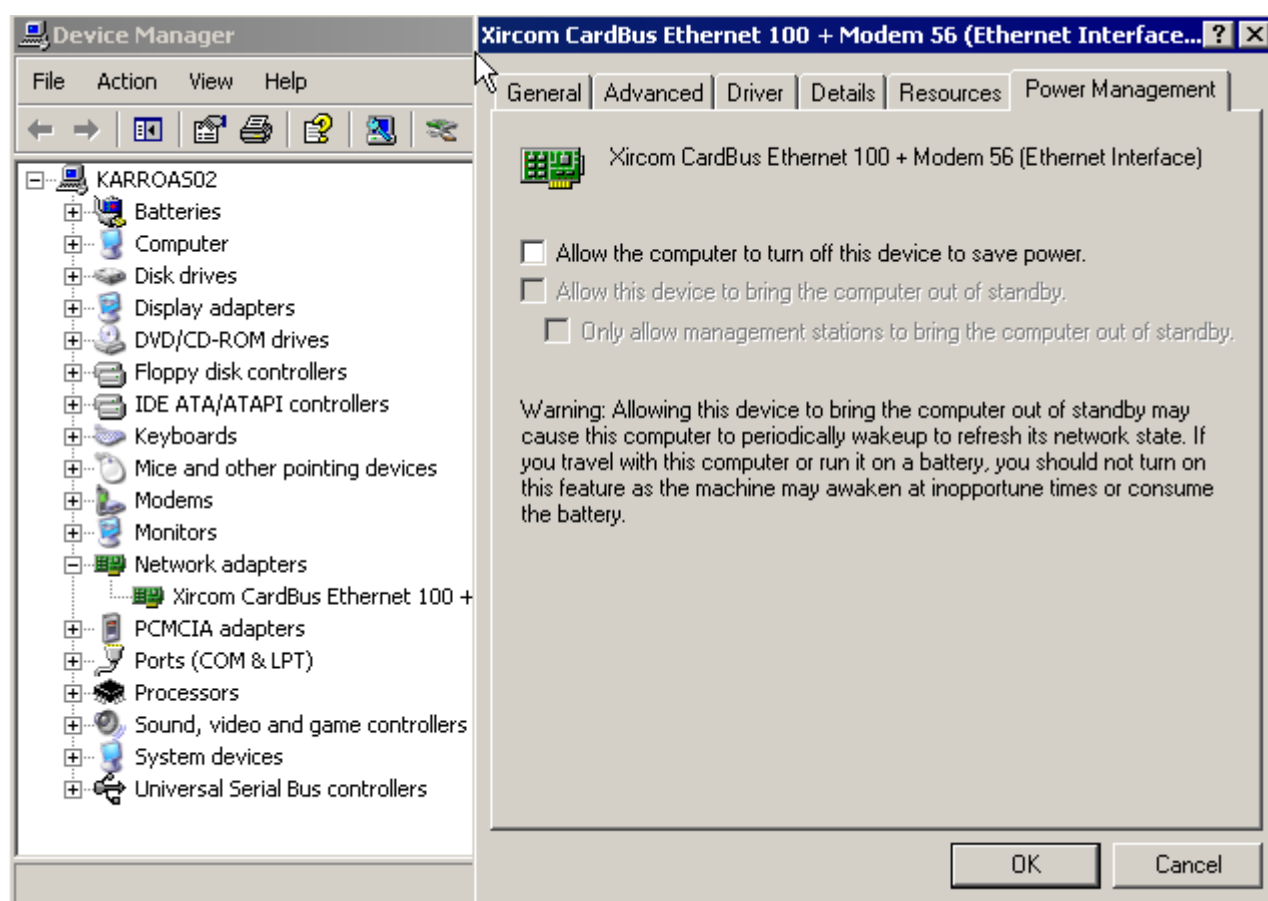
Select **Start|Control Panel|Power Options**.

- Set the power scheme of hard disk and system as **Never**, and close the dialog.



Now the network adapter has to be configured:

- Select **Start|Control Panel|System**.
- Activate the tab **Hardware**, and click on the button **Device Manager**.
- Navigate and then right click on Network adapters.
- From the context menu, select **Properties**.
- Activate the tab **Power Management**
- Uncheck the option "**Allow the computer to turn off the device to save power**"



After the host file has been modified and the power management options have been set, the system has to be restarted!



Restart the system to apply the modifications!

3.4.2 Server side installation (Scenario Executor)



For the log files, additional **100MB** of free space are required, cf. [Log files!](#)

Make sure that Apollo has been installed, either the Apollo operator workstation or the Apollo desktop server.

Also the Apollo API has to be installed. (Mandatory: the Internet Information Service is installed and configured, and the local users IWAM and IUSR have been assigned the respective rights.

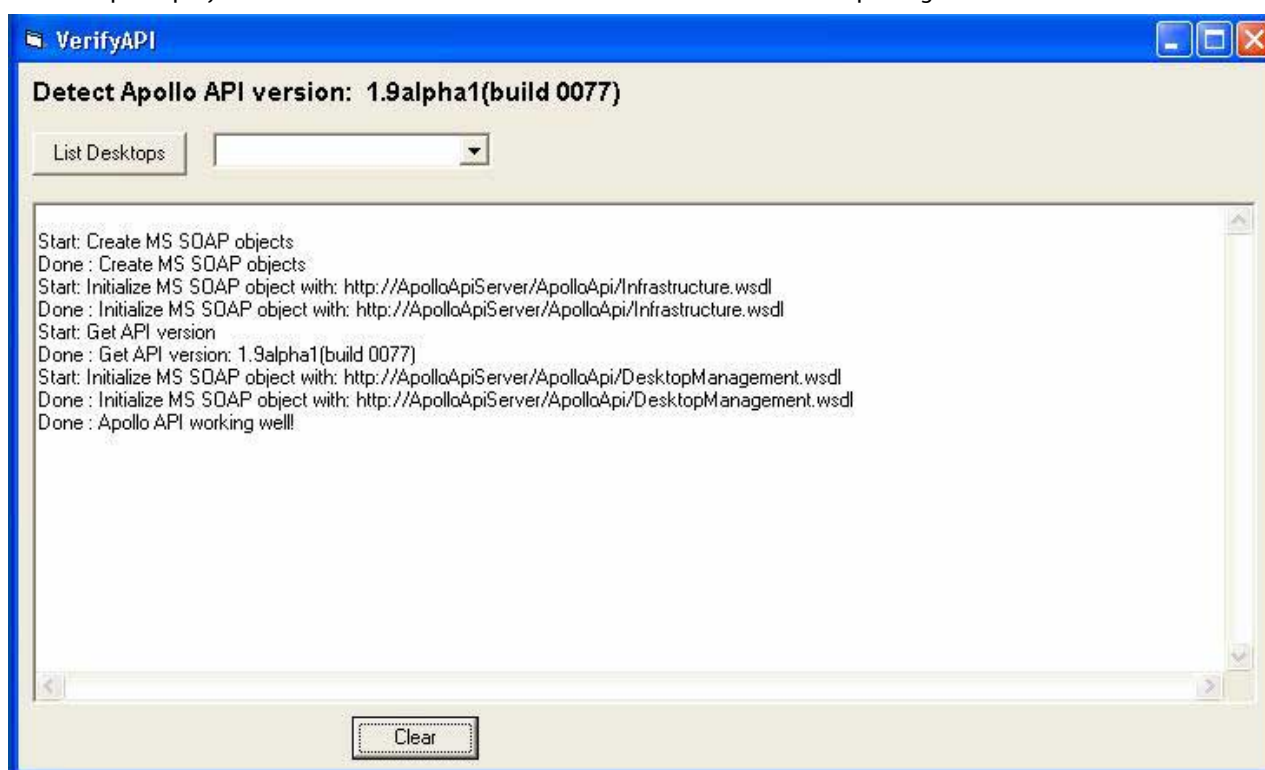
To learn more about the installation of Apollo and the Apollo API, cf. Apollo user's manual, doc -3197-2.

To check the correct installation of Apollo and the Apollo API, use the tool VerifyAPI.exe provided on the Apollo CD-ROM:

- Navigate to the folder **Apollo (CRS-3045)\Apollo 1.9\API**
- Double click on **VerifyAPI.exe**

The verification tool launches and checks the configuration. If everything is ok, after several instances it shows the build of the Apollo Software.

In a second step you can click on the button "List Desktops". The tool will look for all desktop servers of the related Apollo project and lists them. The entries of the list can be viewed opening the list box:



Provided Apollo and Apollo API have been installed and configured according the installation instructions as described in the Apollo user's manual, the installation of the **Scenario Executor** requires the following steps:

- Installation of the **Java Runtime Environment 5.0 (version 1.5.0_07)**
- Installation of **Apache Tomcat Server version 5.5.17**
- Unpacking of **Systinet4Tomcat.zip**
- Installation of **Scenario Manager**

3.4.2.1 Installation of the Java Runtime Environment 5.0 (version 1.5.0_07)

The software is located on the Apollo CD-ROM in the subdirectory

3rd Party\Java Runtime Environment

- Navigate to this folder.
- To install the Java Runtime Environment, double click on jre-1_5_0_07-windows-i586-p.exe.

Follow the instructions on the screen.

3.4.2.2 Installation of Apache Tomcat Server version 5.5.17



In case a former version of Scenario Management has already been installed on the system, you might want to keep the customized files (log-files, xmls-files).

Check the environment variable CATALINA_HOME. If she refers to a folder Tomcat 5.5 you have to copy the folders CATALINA_HOME/logs and CATALINA_HOME/xmls to a temporary folder. Then delete the following files and folders

%CATALINA_HOME%\webapps\ConfiguratorLauncher.war

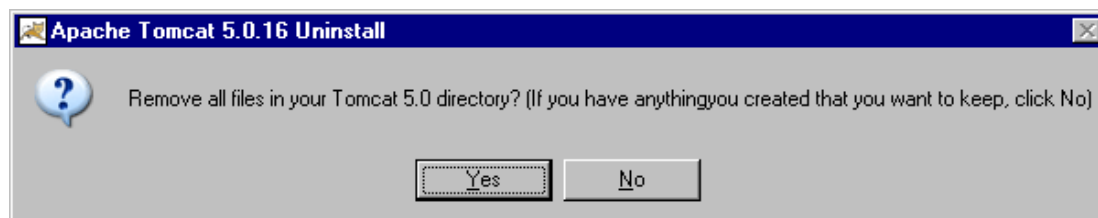
%CATALINA_HOME%\webapps\ConfiguratorLauncher

%CATALINA_HOME%\webapps\Systinet\app\ScenarioAPIPackage.jar

"%CATALINA_HOME%\webapps\Systinet\work\ScenarioAPIPackage.jar

If the environment variable refers to Tomcat 5.0, the folders mentioned above will not be affected by a new installation and you can later copy your files directly to the new target folder.

In case you want to de-install an old Tomcat version, in order to keep the customized files, select No in the dialog shown below, and de-install it without removing the files!



You can delete them later when the customized files of the Scenario Manager have been copied to the new destination.

The software is located on the Apollo CD-ROM in the subdirectory

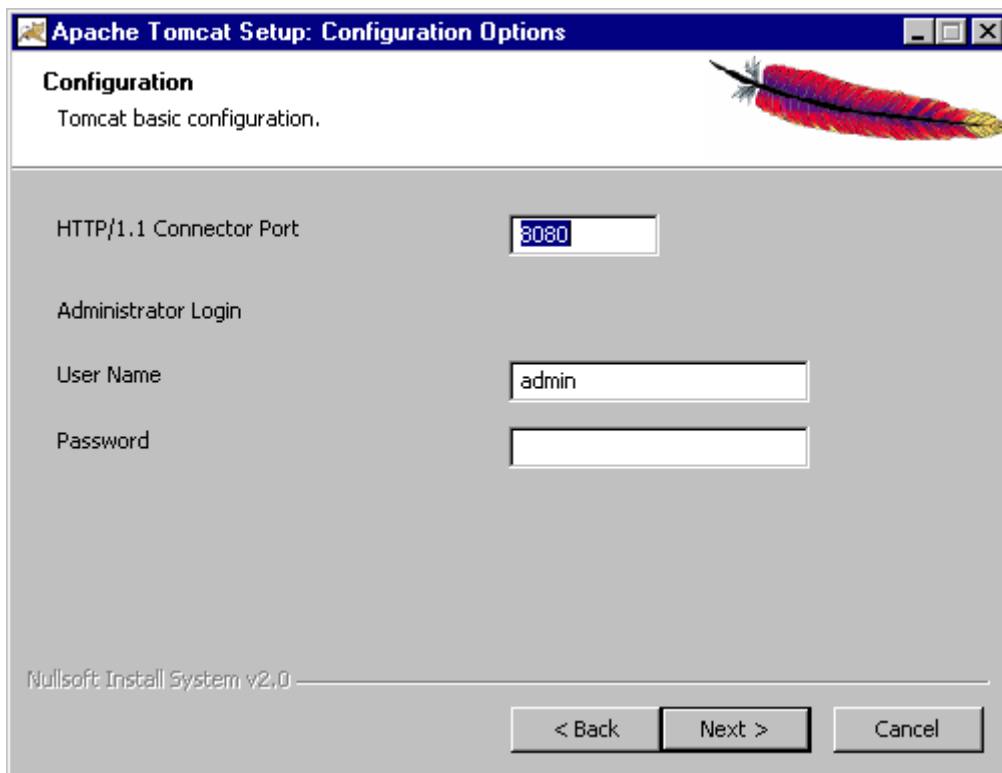
3rd Party\Apache

- Navigate to this folder.
- Double click on **apache-tomcat-5.5.17.exe**.

Follow the instructions on the screen. If you accept the default installation path, the software will be installed to the folder

C:\Program Files\Apache Software Foundation\Tomcat 5.5

When asked about the password for the Tomcat Server Admin: this password can be freely selected. It has nothing to do with your network password etc. Just make sure that you later remember the password ... or let it empty....

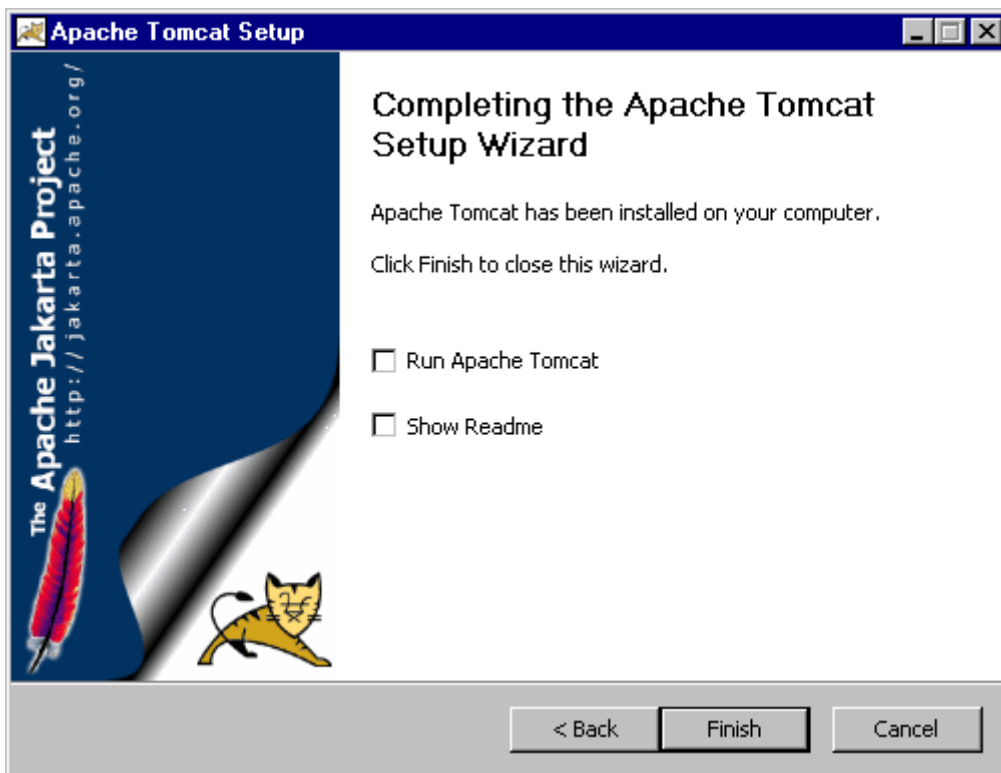


When the installation is complete, check if the Port 8080 is opened!

The installation continues. On the last dialog, **deselect** the options "**Run Apache Tomcat**" and "**Show Readme**"



If the option "Run Apache Tomcat" is checked, the service will be started, and you first have to stop it before being able to configure it!



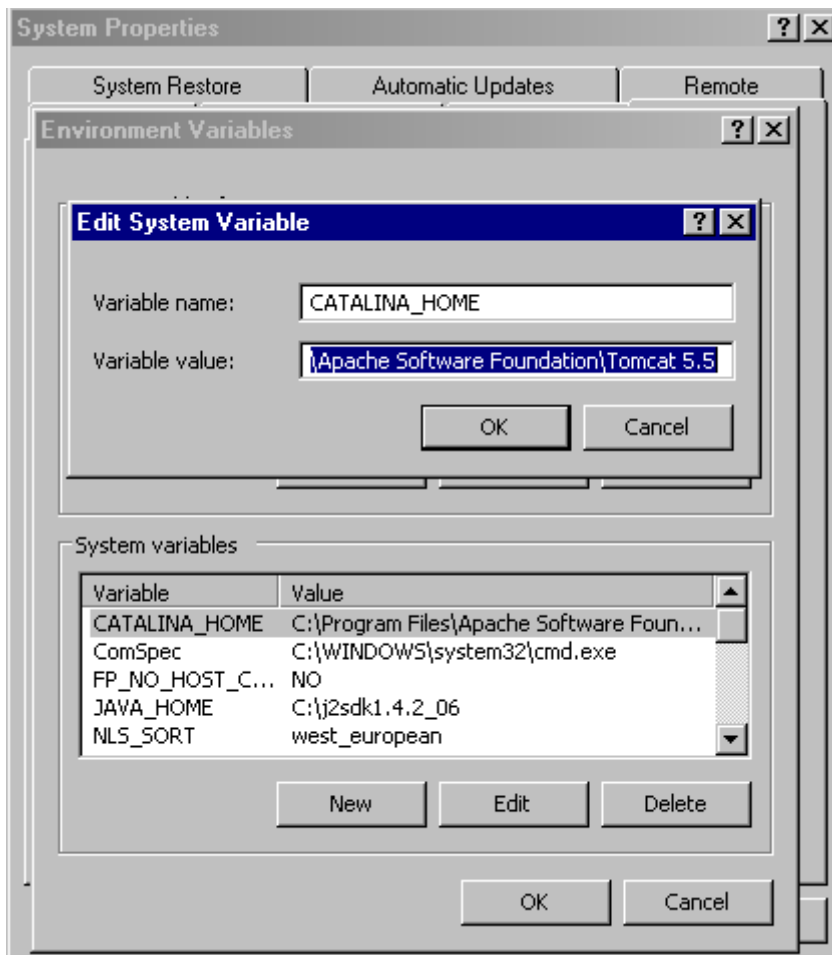
3.4.2.3 Environment variable to Apache Tomcat and configuration of the Tomcat Server

When the installation is finished, an environment variable to the installation path has to be set and the Tomcat server has to be configured.



Make sure that Apache Tomcat Server is not running.

- Set the environment variable on system level:
Select **Start|My Computer| Properties|Advanced|Environment Variable**



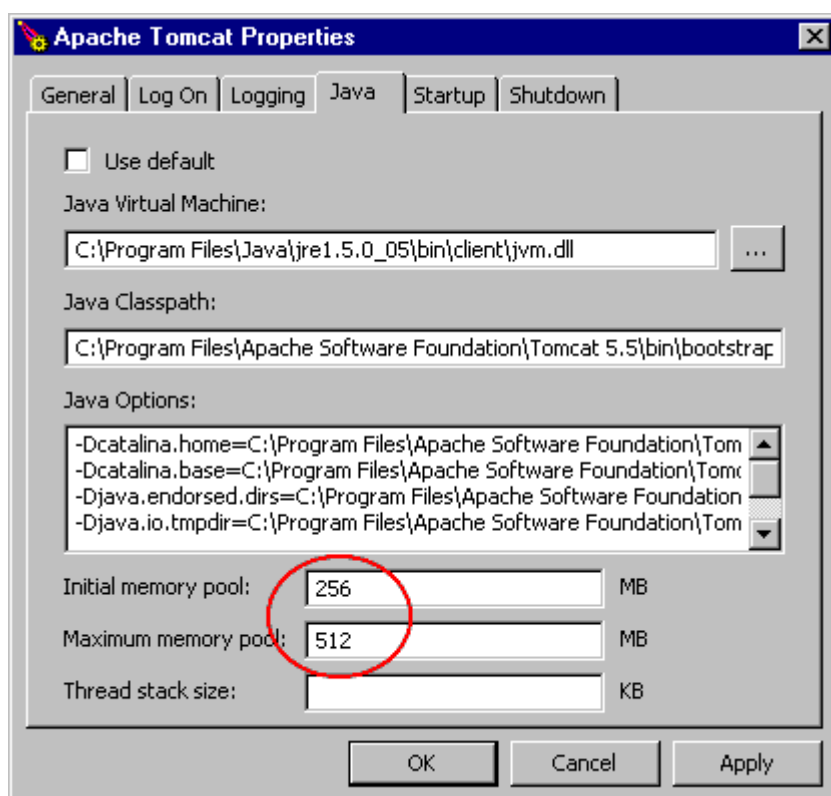
CATALINA_HOME = C:\Program Files\Apache Software Foundation\Tomcat 5.5 (in case the default installation path is used, otherwise indicate the custom installation path!)



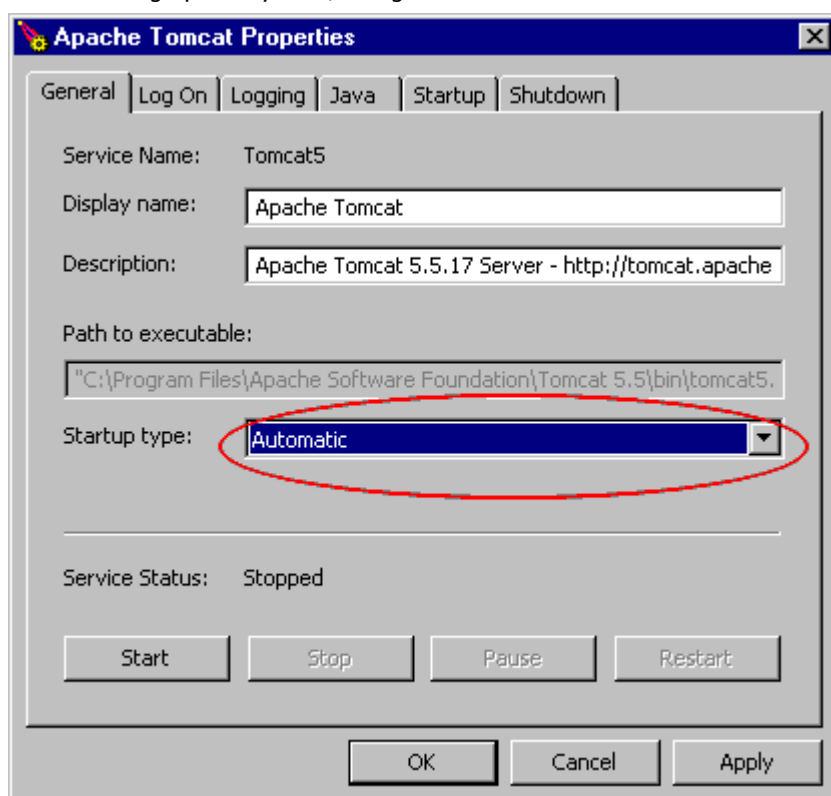
After the environment variable has been set, it is highly recommended to close all open instances of the Windows Explorer! Otherwise you risk that the environment variable is not fully introduced to the system and the setup of the Scenario Controller will not see it and therefore abort.

To configure Tomcat, proceed as follows:

- Select **Start|All Programs|Apache Tomcat 5.5|Configure Tomcat**
- On the **JAVA tab**, assign **“Initial Memory Pool” : 256 MB & “Maximum Memory Pool” : 512 MB.**

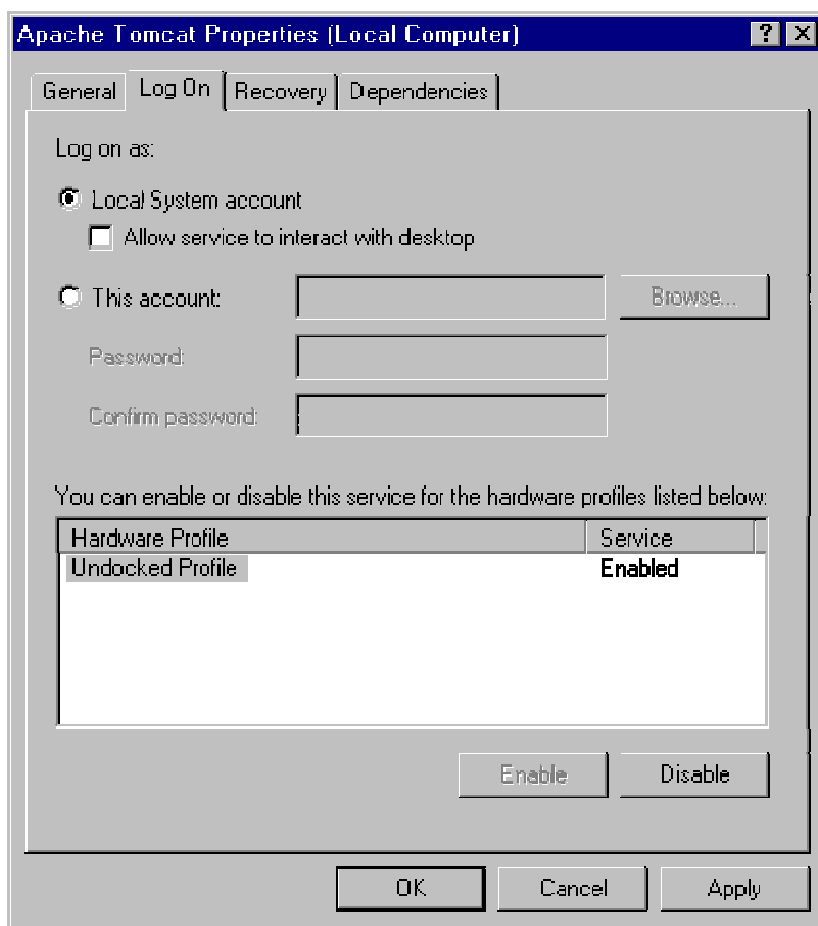


As default, the Apache Tomcat Server starts manually. In case you want to have it started automatically when starting up the system, navigate to the **General Tab** and select Startup type as "Automatic".



The Scenario Executer is running as soon as the Apache Tomacat Server has been started. The Scenario Executer has no dedicated "start" command. Therefore it is recommended to have the Apache Tomacat Server started automatically when booting the system to ensure that the Scenario Executer is running. This is done by selecting the Startup type as "Automatic".

Subsequently navigate to the tab **Log On** and apply the settings as shown below:



Do not check "Allow service to interact with the desktop". For further information, please refer to [Tomcat service setting: Allow service to interact with the desktop](#)

3.4.2.4 Unzip Systinet4Tomcat.zip

The Zip-File is located on the CD-ROM in the folder
 ...\\Apollo (CRS-3045)\\Apollo 1.9\\ScenarioManagement

If the default installation path is used, extract these files into the folder **C:\\Program Files\\Apache Software Foundation\\Tomcat 5.5** (= CATALINA_HOME).



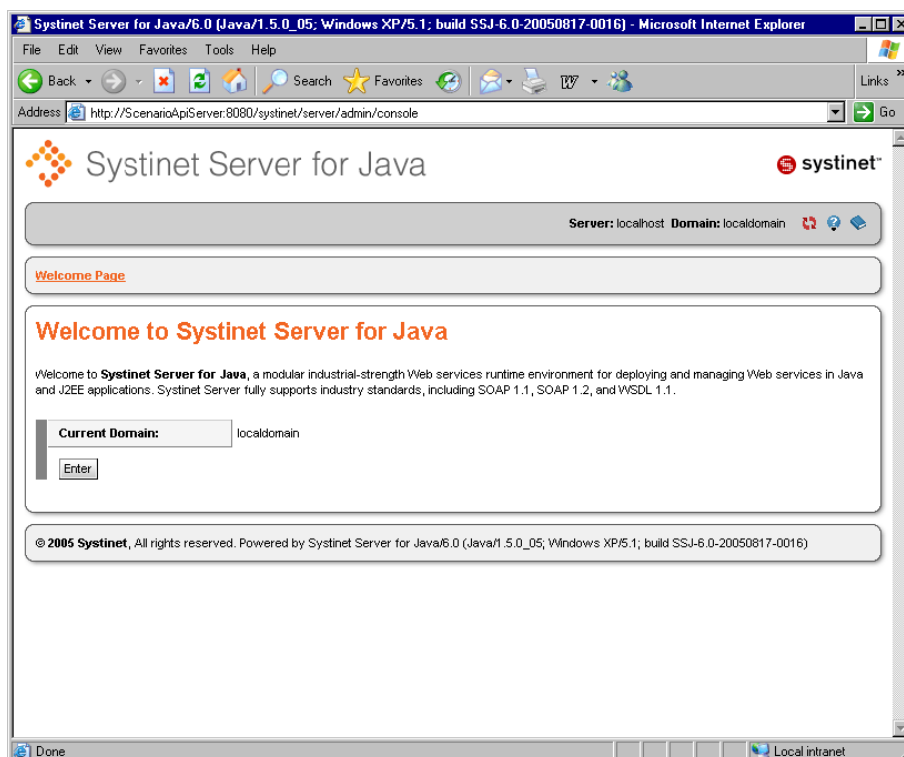
Make sure that the files are extracted into the folder CATALINA_HOME!

The following folders will be created at CATALINA_HOME:

- Common
- Conf
- Webapps

Check if these folders have been created. You can also verify the successful Systinet extraction by starting the **Systinet Server for Java**:

- In case the Tomcat Server is stopped, start it!
- Launch the Internet Explorer
- On the menu bar, select **Tools|Internet Options**
- Navigate to the tab **Connections**
- Click the button **LAN settings**
- In case a proxy server is used for your LAN: Check the option **Bypass proxy server for local addresses**.
- Enter the following address: **http://ScenarioApiServer:8080/Systinet/server/admin/console**
If everything is correct, the following page will be opened:



3.4.2.5 Installation of Scenario Management

- If the Tomcat Server is running, stop it: right click on the icon in the system tray and select "Stop"!
- On the CD-ROM, navigate to ...\\Apollo (CRS-3045)\\Apollo 1.9\\ScenarioManagement\\ and double click on **setup.exe**. The setup will copy and deploy the required files (ConfiguratorLauncher.war, ScenarioApiPackage.jar, ScenarioApiPackage.jar)
- Start Tomcat Server. This step will deploy the binaries automatically.
- Open Tomcat log file from "CATALINA_HOME/logs/" and verify that Scenario API Server is online (there is an entry **Systinet** in this folder with a current time stamp) or wait until it gets online.



In case you already had a previous installation of Scenario Management, copy the folders logs and xmls of the previous valid CATALINA_HOME directory to the current directory CATALINA_HOME.

3.4.3 Client side installation (Scenario Configurator)

The Scenario Configurator simply requires the installation of the **Java Runtime Environment(JRE) 5.0 (version 1.5.0_07)**



In case you already run Scenario Configurator Version 1.0 from this computer, no intervention is required: A Java Web Start application always looks for a new version on the server and downloads it. In case this does not work, cf. [Troubleshooting](#)

3.4.3.1 Installation of the JRE 5.0

The software is located on the Apollo CD-ROM in the subdirectory

3rd Party\Java Runtime Environment

- Navigate to this folder.
- To install the JRE 5.0, double click on jre-1_5_0_07-windows-i586-p.exe.

Follow the instructions on the screen.

3.4.3.2 Configuration and launching of Apollo Scenario Configurator

The **Scenario Configurator** is a web start application delivered from the Apache Tomcat Server which hosts the Scenario API.

It can run on every machine where the Java runtime environment is installed.

To configure the Java web start application,

- Launch the Internet Explorer
- In the address bar, enter the following address:
<http://scenarioapiserver:8080/ConfiguratorLauncher/Launcher.jnlp>



The URL is case sensitive. Please mind the upper and lower case characters.

This will start the **Scenario Configurator** as Java Web Start application which is updated whenever a modified version is detected on the server.

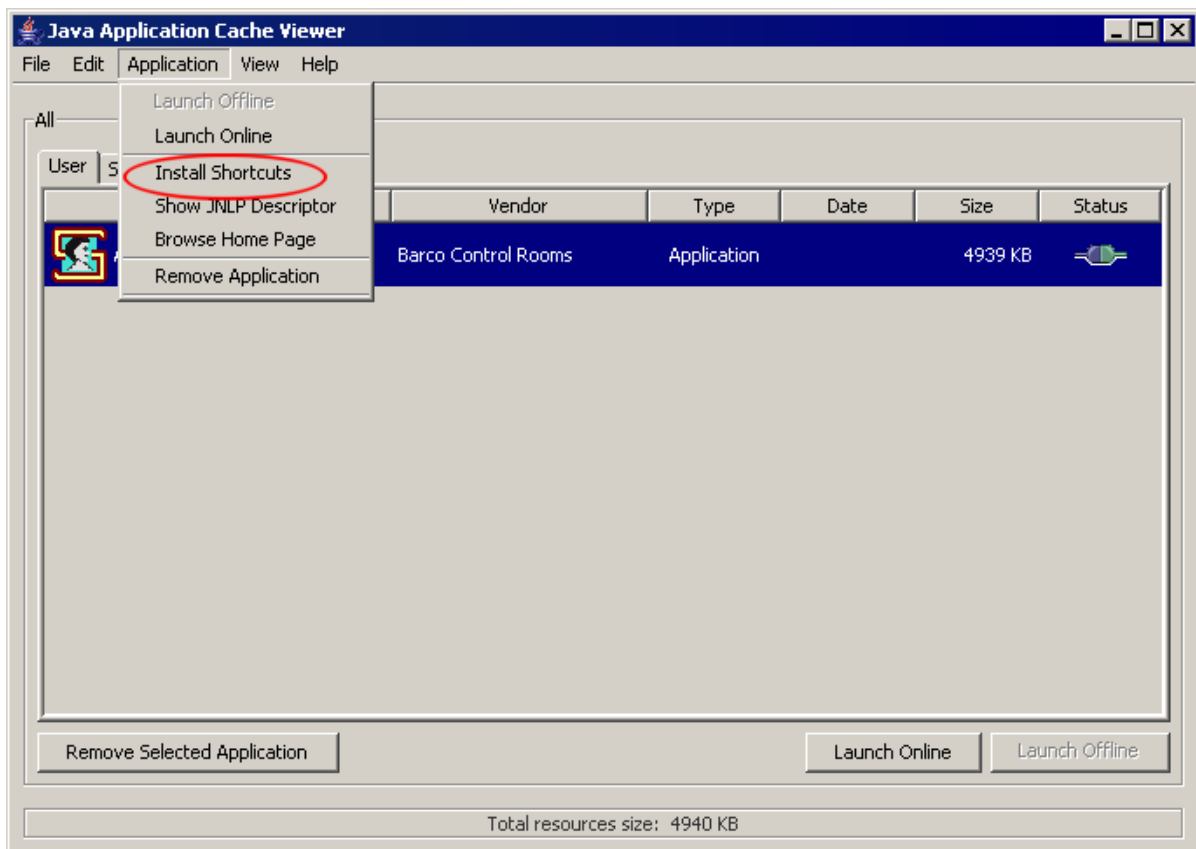
A shortcut to **Scenario Configurator** is created on the desktop and in the **Start** menu.

In case the shortcut creation fails, you can create them via the **Java Application Cache Viewer**:

Browse to the Java Runtime installation folder (in case you used the default path:
C:\Program Files\Java\JRE1.5.0_07) and open the subfolder bin.

In this subfolder there is an application javaws.exe (java web start).

Double click on this exe-file. The Java Application Cache Viewer pops up and shows the web start application clients of this system. Select **Application|Install Shortcuts** to install a shortcut on the desktop and in the Windows **Start** menu.



4 The Scenario Configurator

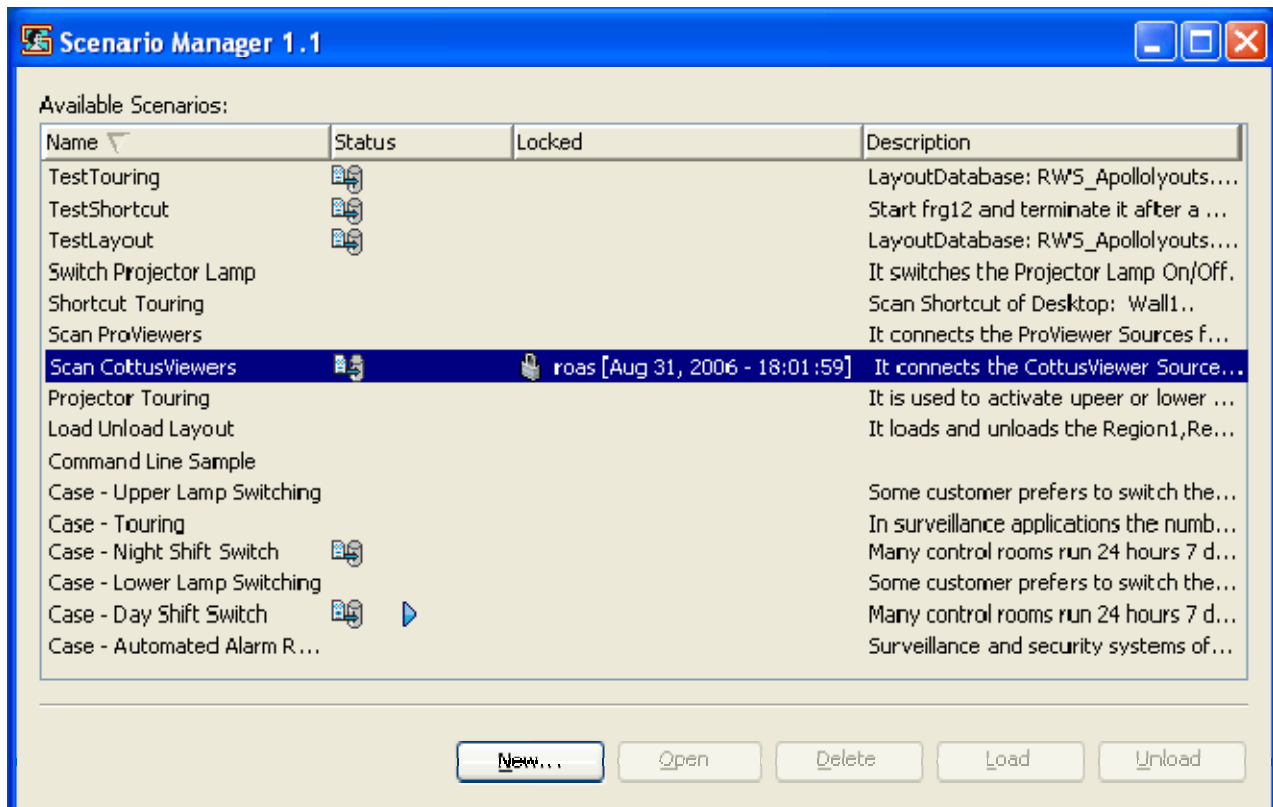
4.1 Launching the Scenario Configurator

To launch the Java web start application, double click on the shortcut on the desktop or select **Start|Programms|Apollo - Scenario Configurator|Apollo - Scenario Configurator**.

After the Java web start application is started it shows the following dialog (the entries might look different and depend on the sample files copied during installation of the Scenario Executer and/or scenarios already defined for the same API server):



A scenario is an XML file stored in the XML store of the ScenarioApiServer (%CATALINA_HOME%\XMLS)



The following list explains the columns of the dialog:

Name	Name of the scenario as defined by the user. The name is assigned when a scenario has been created by clicking on the New... button
Status	If a scenario is loaded, there is an icon the status column; and, selecting this layout, the Load button is disabled. Next to the status icon, an indicator shows if the scenario is running (), or paused (). If there is no icon in the status column, the scenario has not been loaded yet. Click on the Load button to load it!
Locked	If a scenario is being edited by a user, it is locked to make sure that not a second user modifies it at the same time. The "locked" status and the current owner (editor) as well as a time stamp is indicated in the Locked column (roas [Aug 31, 2006 - 18:01:59])
Description	This is a free text entered when creating a new scenario.



To pause or stop a scenario manually, click on the Open button. This command opens the editor to modify the scenario and/or to manipulate its execution.

A scenario is an xml file which is saved in the directory %CATALINA_HOME%\XMLS.

As soon as the Scenario Configurator is launched, the list of scenarios is populated with all xml files located in this directory.

All new created scenarios will be saved in this directory, and the entries in the Scenario Configurator will be adapted accordingly.

Command button New

Clicking on the button will open a dialog to define name and description for a new scenario

Command button Open

Clicking on this button will open the editor to add or modify actions and triggers for a selected scenario.

Command button Delete

Clicking on this button will delete the selected scenario file from the xml store, the directory %CATALINA_HOME%\XMLS. The deleted scenario is irretrievably lost.

Command button Load

Clicking on this button will load the selected scenario, i.e. making the scenario addressable. It can be edited, and is waiting for a trigger to be started. Loading a scenario does not mean starting a sequence of actions, but means loading of an action sequence, trigger list and timeline for a scenario and making the scenario ready to be started by a trigger.

All triggers defined in the scenario are "live" as soon as the scenario is started. If e.g. a trigger is defined to fire after 2 Minutes, this time will be counted down immediately when the scenario is started.

In case the scenario is already loaded, the **Load** button is disabled for this scenario.

Command button unload

Clicking on this button will unload the selected scenario from the server. The **Unload** command has to be confirmed in an additional dialog which pops up. If accepted, the scenario is unloaded from the server, which means that the Scenario Executor no longer "sees" this scenario definition. The icon in the **Status** column disappears.

In case the selected scenario has not been loaded yet, the **Unload** button is disabled for this scenario.



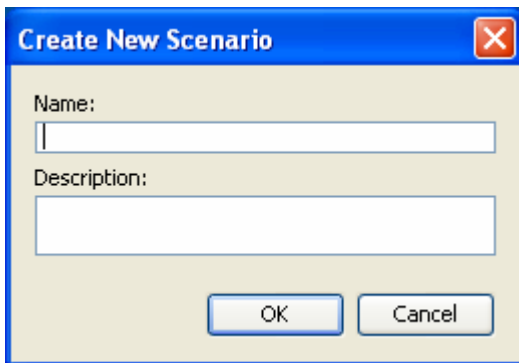
The behavior described only applies for scenarios which are not locked by another user. For locked scenarios, the command buttons are disabled.

5 The Scenario Editor

The dialog which pops up when clicking on the New or Open button of the Scenario Controller is called Scenario Editor.

5.1 Creating a new scenario

To create a new scenario, click on the **New...** button. A dialog opens where the name and the description of the scenario has to be entered:

A screenshot of a Windows-style dialog box titled "Create New Scenario". It has a blue title bar with a red close button. The dialog contains two text input fields: "Name:" and "Description:". Below the fields are two buttons: "OK" and "Cancel".

Please mind that the name has to be unique, and that characters which are forbidden in a filename or which have a special meaning in XML (\ / : * ? " < > |) must not be included in the name.

Name and description can be modified afterwards when opening the scenario.

After the name and the description of the new scenario have been entered and the dialog has been quit with **OK**, the new scenario shows up as an entry in the list.

To define the scenario, navigate to the respective entry and click on **Open**.

5.2 Editing a scenario

To define and/or edit a scenario, click on the **Open** button. This command opens the **Scenario Editor** where you can modify name and description, define and re-organize the action, define and modify time line and trigger of the action as well s to manually start/pause/stop the scenario.

The caption of the **Scenario Editor** indicates the name of the scenario being edited.



If you re-name the scenario, i.e. if you modify the name, the caption will be adapted at once.

Name

This entry shows the name which has been given when creating the new scenario. If you want to change it, you can do it. In the list of scenarios, the new name shows up after the modified scenario has been saved. Please mind the characters forbidden in XML.



Assigning a different name will only rename the scenario. It is not possible to copy a scenario in the Scenario Configurator. If required, open the XML store and copy the desired scenario using the Windows Explorer.

Description

This entry shows the description which has been entered when creating the new scenario. If desired, modify it! In the list of scenarios, the new description shows up after the modified scenario has been saved.

Timeline

This entry shows when the scenario will be started time-controlled, i.e. activated to be ready for execution (it waits for the trigger which will start the execution). To set or modify the **TimeLine**, click on the **Schedule...** button!

Action Sequence

In this list box the actions of the scenario are listed. The icon indicates whether the command is an internal action () , or an external action () , or an Apollo action () , supported by the Apollo API). Next to the icon the name of the action is listed and a unique ID number to identify the action in the sequence.

Next to the list box the command buttons allow to manage the actions.

Icon	description
	Add, to add a new command/action to the scenario
	Modify, to modify the selected command
	Delete, to delete the selected action
	Move up, the selected action is moved upwards in the sequence, i.e. executed earlier
	Move down, the selected action is moved downwards in the sequence, i.e. executed later

Trigger List

The list box comprises all triggers assigned to this scenario. The icon indicates whether it is an internal trigger () , an external trigger () or an Apollo trigger () , event raised in Apollo)

New triggers can be added to the list; already existing triggers can be edited or deleted using the command buttons at the right of the trigger list field:

Icon	description
	Add, to add a new trigger for scenario
	Modify, to modify the selected trigger
	Delete, to delete the selected trigger

Command button Start

This button is for manually starting scenarios which have its run frequency in the timeline set to manually. The scenario then is sensitive for triggers and will start running as soon as a trigger fires.

Clicking on the Start button has not effect on time-controlled scenarios except the scenario has been manually stopped by clicking the Stop button. Then clicking the Start button will resume execution of the scenario provided the duration time is not over yet.

The Start button will schedule the next Stop Time of the scenario, in case of time-controlled scenarios.

Command button Pause

Use this button to pause the execution of the scenario. Execution will be resumed if the Start button will be clicked within the duration time of the scenario.

Command button Stop

Use this button to interfere with the scenario execution. The scenario will be stopped and only resumed if the Start button will be clicked within its duration time.

The Stop button will schedule the next Start Time of the scenario, in case of time-controlled scenarios.

Command button Save

Use this button to save any modifications made during editing the scenario.

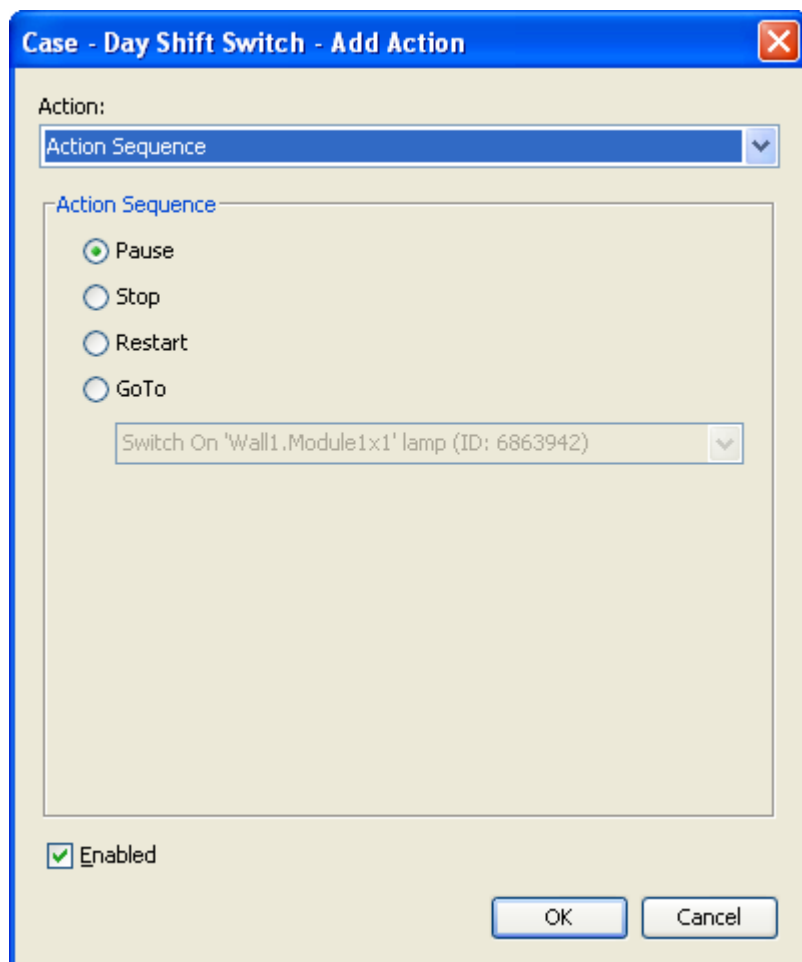
Command button Close

Use this button to close the Scenario Editor. In case modifications have not been saved yet, you are asked to save them or not.

5.2.1 Actions

5.2.1.1 Add actions (+)

Clicking on this button displays a dialog where the desired action can be chosen and defined:



The list of actions comprises:

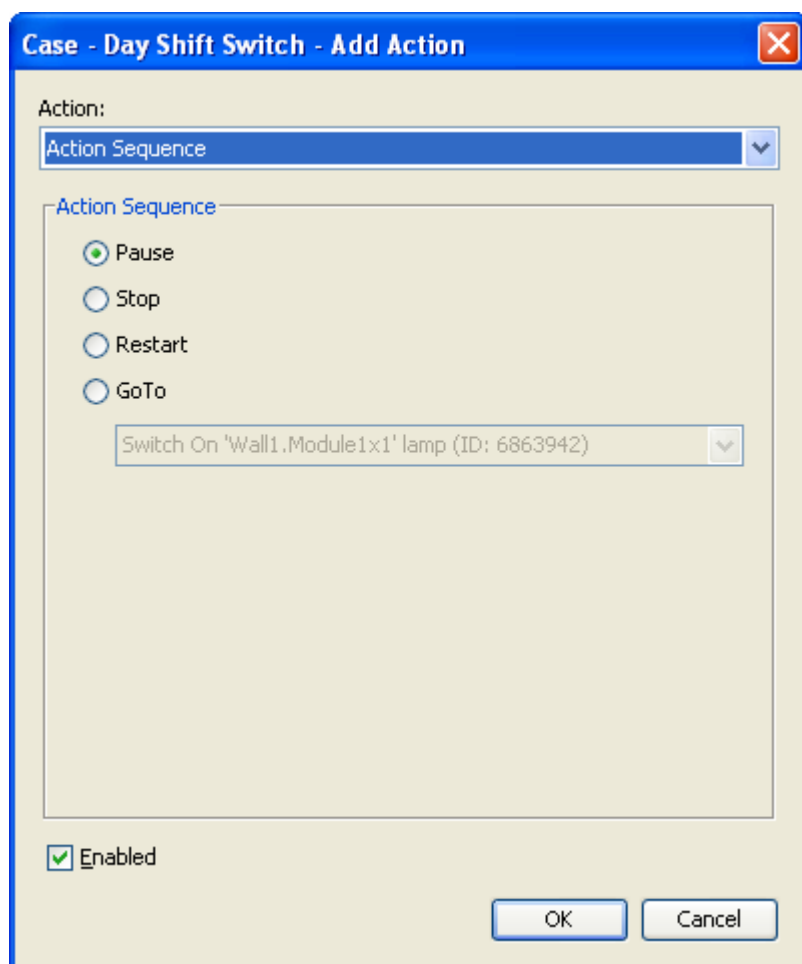
Action	description
Action Sequence	To control the execution of the scenario
Trigger	To enable, disable or fire a trigger
Wait	To define a "sleeping time"
Activate Layout	To load a layout
Deactivate Layout	To unload a layout
Command Line	Used for command line executions from the Server-side
Connect Source	To connect a source to a viewer
Disconnect Source	To disconnect a source to a viewer
Switch Projector Lamp	To switch the projector from standby into operation and vice versa
Set Video Channel	To set a video channel in the FRG Viewer

Action	description
Set Streaming Source	To set a streaming source in the FRG Viewer
Set Streaming Video Channel	To set the streaming video channel in the FRG Viewer
Activate Projector Lamp	To select the active lamp (dual lamp projector)
Start Shortcut	To start a shortcut

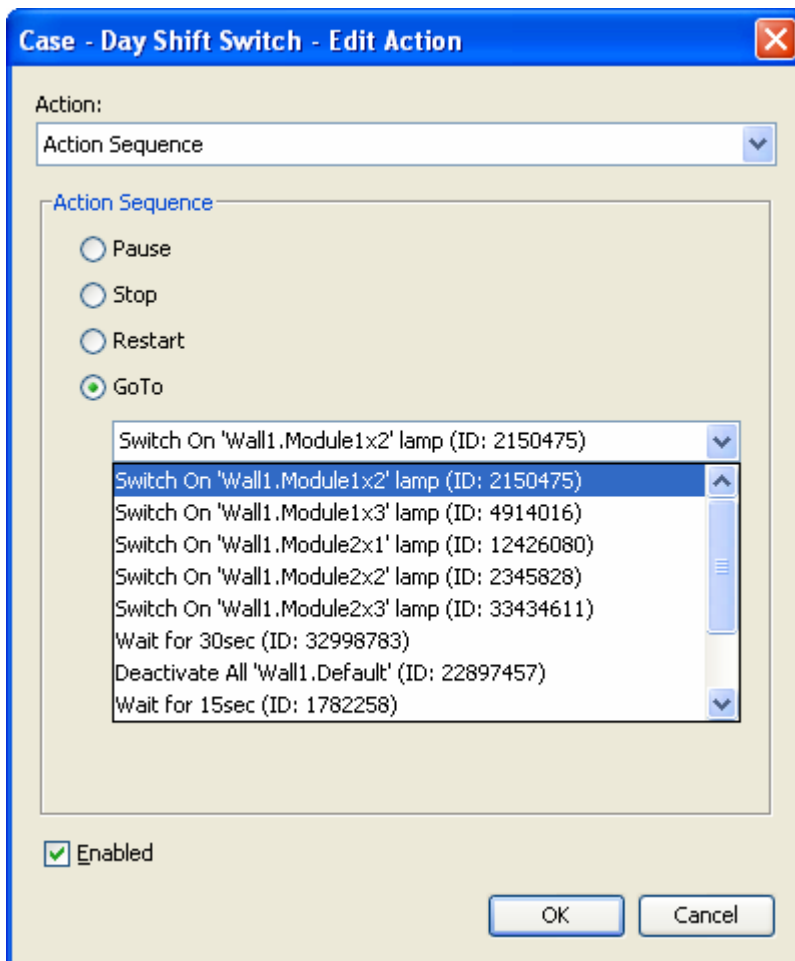
In the following the actions will be described. Description is based on the assumption that the Scenario Configurator is **Online** and connected to the respective Desktop Server. Then the list boxes of the dialog will be populated with the information derived from the project via the ApiServer.

However, the Scenario Configurator can be operated while the Apollo API Server is offline – then of course all entries have to be made manually, and knowledge about the project and the layout database for the project is mandatory to match all the names and settings to ensure that the scenarios will run as expected.

Action Sequence



This action controls the flow of executing the scenario. It pauses (**Pause**) the execution or stops (**Stop**) it, it may **restart** the execution of the scenario, thus initiating the first action defined in the scenario, or it initiates a jump to an action in the scenario out of the ordinary sequence of steps (**GoTo**). If **Goto** is selected, the jump has to be defined. It is selected from the list box which is populated with all actions defined in this scenario.



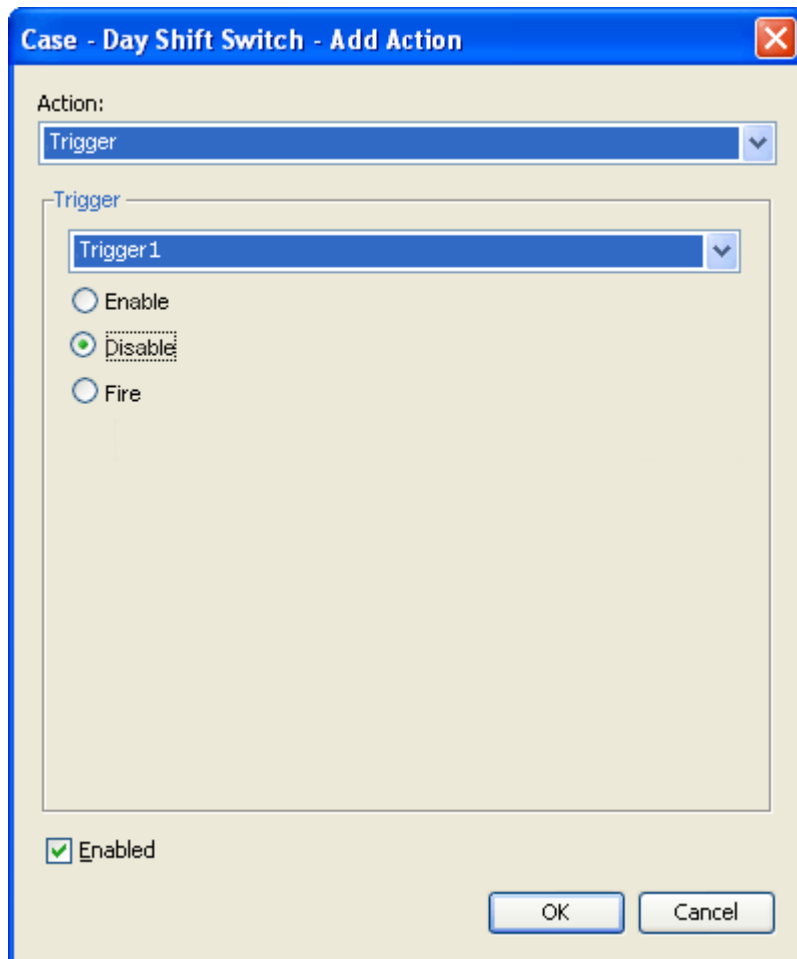
If the **Enabled** check box is cleared, the action is disabled, and shows up grayed out in the list of actions.



Whenever the action sequence is Pause, the execution of the scenario will be on hold until a trigger fires. Then the execution will be resumed with the action following the Pause action.

The Stop option will stop the execution of the scenario. If a trigger fires the scenario to be executed again, execution will start with the first action of the scenario.

Trigger



To add a trigger action, it is mandatory that triggers had already been defined for this scenario. Then the list box of the triggers will be populated with the defined triggers.

When defining a trigger action it is possible to initiate or to prevent a trigger from firing, thus controlling the flow of execution of the scenario.

Select **Disable** to deactivate the trigger dynamically. Select **Fire** to have the trigger fired when the execution of the scenario is at this point.

If a trigger is dynamically disabled, it might be recommended to **Enable** it again in a following action.

If the checkbox **Enabled** is cleared, the action is deactivated and grayed out in the list of actions.

Wait

Case - Day Shift Switch - Edit Action

Action:
Wait

Wait

☒ For:

0 Hours
0 Minutes
1 Seconds

☐ Till:

11: 36:
July 14, 2006

☒ Enabled

OK Cancel

This action allows to interrupt the execution of the actions of the scenario for a certain time. The period can be either entered in hours, minutes and seconds, or a date can be defined up to which the execution is interrupted.

Enter the duration in hours, minutes, and seconds; or select the date when it should restart by using the calendar control.

Use the spin buttons to increase or decrease the selected value by one.

Case - Day Shift Switch - Edit Action

Action:
Wait

Wait

☒ For:

0 Hours
0 Minutes
1 Seconds

☐ Till:

11: 36:

July 14, 2006

July 2006

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26							1
27	2	3	4	5	6	7	8
28	9	10	11	12	13	14	15
29	16	17	18	19	20	21	22
30	23	24	25	26	27	28	29
31	30	31					

☒ Enabled

OK Cancel

If the checkbox **Enabled** is cleared, the action is deactivated and grayed out in the list of actions.

Activate Layout

Case - Day Shift Switch - Add Action

Action:
 Activate Layout

Activate Layout- [DesktopMgmt Service Online]

Desktop:
 Wall1

Region:
 <default>

Layout:
 AllViewers

☒ Enabled

OK Cancel

To load a layout on the display wall, use the action **Activate Layout**. Since a layout is defined in a layout database which is assigned to the **Desktop Server**, at first the **Desktop Server** has to be selected from the list of available **Desktop Servers** of the ScenarioApiServer.

As soon as the Desktop Server is selected, the **regions** defined in the layout database for this Desktop Server populate the **Region** list. In case there are no regions defined, the region list comprises the single entry **<default>**.

After the region has been selected, the list of **layouts** available for this region is populated. Select the desired **layout**.

If the checkbox **Enabled** is cleared, the action is deactivated and grayed out in the list of actions.

Deactivate Layout

Case - Day Shift Switch - Add Action

Action:
Deactivate Layout

Deactivate Layout- [DesktopMgmt Service Online]

Desktop:
Wall1

Region:
<default>

Layout:
☒ AllViewers
☐ All

☒ Enabled

OK Cancel

This action unloads a layout from the display wall. Since a layout is defined in a layout database which is assigned to the **Desktop Server**, at first the **Desktop Server** has to be selected from the list of available **Desktop Servers** of the ScenarioApiServer.

As soon as the Desktop Server is selected, the **regions** defined in the layout database for this Desktop Server populate the **Region** list. In case there are no regions defined, the region list comprises the single entry **<default>**.

After the region has been selected, the list of **layouts** available for this region is populated. Select the desired **layout** to be unloaded.

In case all layouts of this region of the selected Desktop Server shall be unloaded, check **All**.

If the checkbox **Enabled** is cleared, the action is deactivated and grayed out in the list of actions.

Command Line

Command Line Sample - Edit Action

Action:
Command Line

Command Line

Command:
cmd /c Start_Scenario.cmd "Sample 1"

Working Directory:
D:\Users\Wink\Sandboxes\Apollo\Subsystems\ScenarioMgt\Latest B

Environment Settings:

Variable	Value

☐ Wait (For this process to over)

☒ Enabled

OK Cancel

This action is used to execute commands from the command prompt of the Scenario Executor Server.

This functionality is based on the java command ScenarioCmd.jar.

The command uses the syntax

Java.exe -jar ScenarioCmd.jar -Command [Value] -Scenario [Value] -Trigger[Value]

These are the values of the parameters:

Parameter	Short form	Value	Refers to
-Command	-C	All commands available in the Scenario Configurator Type 1: Load, Unload, Start, Stop, Pause Type 2: Enable, Disable, Fire	Scenario Trigger
-Scenario	-S	Name of Scenario	Scenario
-Trigger	-T	Name of Trigger in case of command Type 2	Trigger



Since the trigger is part of the scenario definition, you have always to specify the scenario which "hosts" the trigger. Therefore the -Scenario is the required parameter for all commands.

-Trigger is an optional parameter and has only to be specified if the command affects a trigger.

Examples

What to do	Command line (long/short form)
Start scenario "Activate Layout"	Java.exe -jar ScenarioCmd.jar -Command Start -Scenario "Activate Layout" Java.exe -jar ScenarioCmd.jar -C Start -S "Activate Layout"
Fire Trigger1 of the scenario "Activate Layout"	Java.exe -jar ScenarioCmd.jar -Command Fire -Scenario "Activate Layout" -Trigger Trigger1 Java.exe -jar ScenarioCmd.jar -C Fire -S "Activate Layout" -Trigger Trigger1



If the name of the scenario or the trigger includes blanks, the name has to be enclosed by double quotes.



Please replace "Java.exe" and "ScenararioCmd.jar" with the full path names (or the respective environment variables) of the applications!

It is possible to specify a **working directory**. This is the directory the command line is intended to be executed from. If the working directory has been specified in the respective field, and if the ScenarioCmd.jar is located in the working directory, then no path information for ScenarioCmd.jar has to be included in the command line.

To reduce errors and to make it more convenient, the command line commands can be defined as standalone command files.

Example:

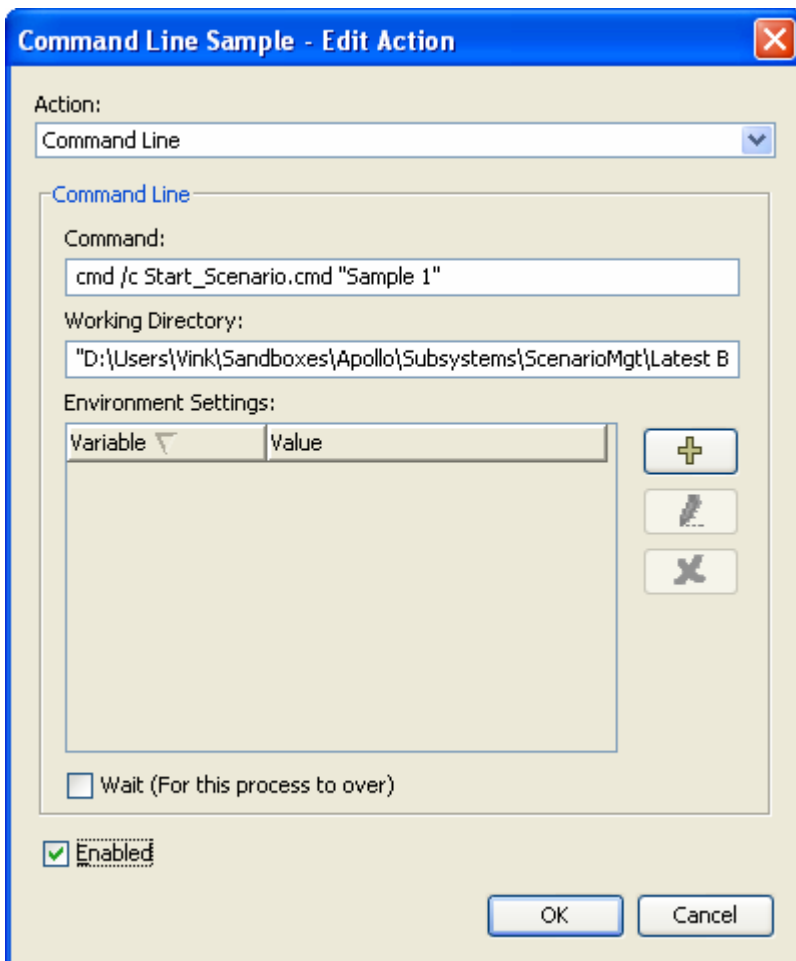
Definition of the command **Start_Scenario.cmd**:

```
%JAVA_HOME%\jre\bin\java.exe -jar ScenarioCmd.jar -C START -S %1
```

Definition of the command **Fire_Trigger.cmd**:

```
%JAVA_HOME%\jre\bin\java.exe -jar ScenarioCmd.jar -C FIRE -S %1 -T %2
```

Using these predefined command lines, the entry in the command line field would look like this:



cmd /c starts a new instance of the Windows command interpreter with the option "Carries out the command specified by string and then terminates". The string consists of the command and the parameter of the command.

(In case of **Fire_Trigger.cmd** of course two parameters have to be handed over, therefore the entry would read **cmd /c Fire_Trigger.cmd "Sample 1" Trigger1**. Please note that double quotes are required since the name of the scenario includes a blank).



It is recommended to save the predefined command files in the working directory!

Entering the environment settings is optional. Clicking on the Add button (+) displays a dialog to enter name and path of the new environment variable. In case environment variables are already defined, they can be modified (Pencil) or deleted (X).

All environment variables defined for this commandline are listed in the respective field.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Connect Source

Command Line Sample - Edit Action

Action:
Connect Source

Connect Source- [ViewerMgmt Service Online]

Viewer:
[Empty dropdown]

Source:
[Empty dropdown]

☒ Enabled

OK Cancel

Connect source is an action which refers to a viewer. Therefore when this action is selected, the **Viewer** list box is populated with all the viewers defined in the project.

Select the desired viewer.

Subsequently the sources defined for this viewer in the viewersources.ini are listed in the **Source** list box.

Select the desired source from the list.

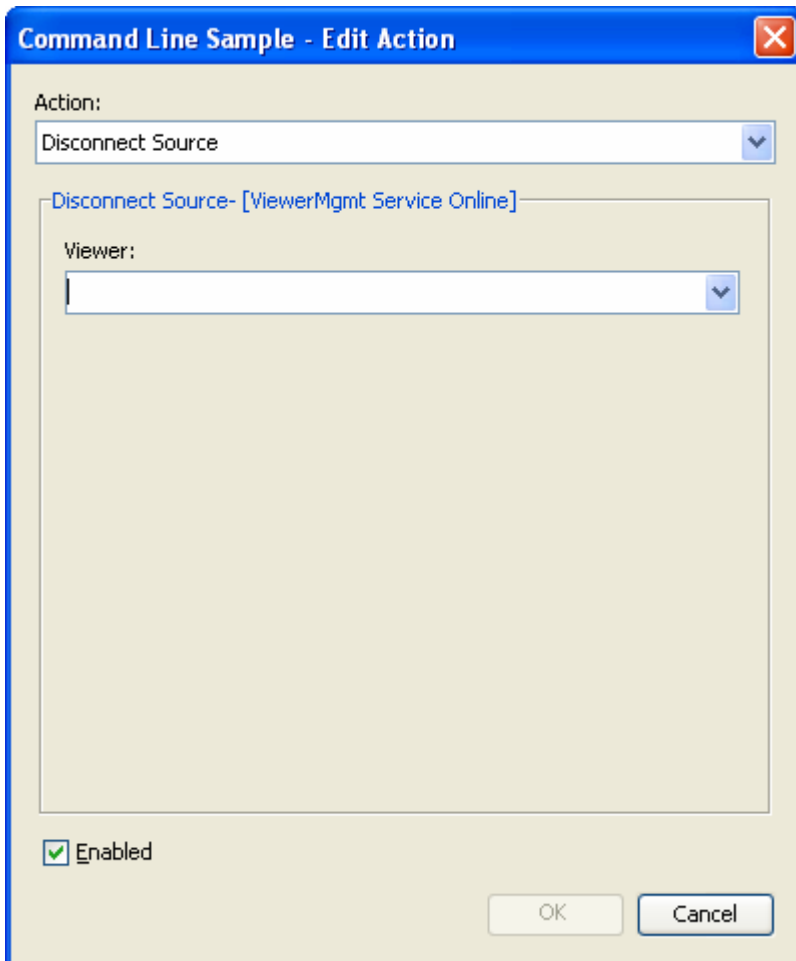
In case the viewer is connected to a different source, it will disconnect and connect to the selected source. If the viewer already is connected to this source, nothing will happen.



The viewer can only connect to a pre-defined source.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Disconnect Source



Disconnect source is an action which refers to a viewer. Therefore when this action is selected, the **Viewer** list box is populated with all the viewers defined in the project and which are currently connected to a source.

Select the desired viewer.

As soon as the **OK** button is pressed, the Viewer will be disconnected from the source.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Switch Projector Lamp

Command Line Sample - Edit Action

Action:
Switch Projector Lamp

-Switch Projector Lamp- [DeviceMgmt Service Online]

Projector:
BCD_SE.Virtual.Module2x1

Switch Lamp:
☒ On
☐ Off

☒ Enabled

OK Cancel

This action allows to switch a projector **on** < (from standby to operation) or **off** (from operation to standby).

Selecting this action will populate the Projector list box with all projectors of the project. When a projector is selected, the current status of operation is indicated: If the lamp is on (projector in operation status), it can only be switched off (**On** is selected). If the lamp is off (projector in standby), it can only be switched on (**off** is selected).

Select the desired option.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Set Video Channel

Command Line Sample - Add Action

Action:
Set Video Channel

Set Video Channel

Viewer:
FRG_Viewer1

Source:
FRG.RGB1_1

Channel Code:
RGB1_1

Port Number:
1

☒ Enabled

OK Cancel

If this action is selected, the **Viewer** list box is populated with all FRG viewer of the project running on the ApiServer.

Select the desired viewer.

Source, Channel Code and Port Number as defined in the viewer language compiler file and/or in the viewersource.ini file have to be defined for this viewer. Enter the values into the respective fields.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Set Streaming Video Channel

This action refers to the FRG Viewer allocated to a StreamingVideo Card and allows to select a source not defined yet in the respective ini-files.



These are the *.ini-files related to the streaming video: viewersource.ini, DigitalStreamSource.ini, EncoderTypes.ini

Selecting this option will populate the Viewer List with all FRG Viewers defined in this project which are connected to a StreamingVideo card.

Enter the required values into the respective fields.

Parameter	description
Source	Name of the associated viewer source
Channel	The name of the channel of the Streaming Video Card as defined in the SwitcherLanguageCompiler
IP Address	IP address, if multicast is selected
IP Port	The port of the streaming source
Network Protocol ID	information about the used protocol, 0: UDP (default), 1: TCP
Stream Protocol ID	0: auto (standard), 1: elementary, 2: program, 3: transport
Stream Program ID	information about the Program ID (0: auto)
Encoder Command-Address	IP address of the encoder

Parameter	description
Encoder Command Port	Network port of the encoder, this information is read from the EncoderTypes.ini file
EncoderNet ProtocolID	protocol id (0:UDP default, 1:TCP)*
EncoderStartCommand	start command to send
EncoderSkipAtStart:	bytes to skip at start of IPPacket*
EncoderSkipAtEnd:	bytes to skip at end of IPPacket*

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Set Streaming Source

This action refers to the FRG Viewer allocated to a StreamingVideo Card and allows selecting a source already defined yet in the respective ini-files.



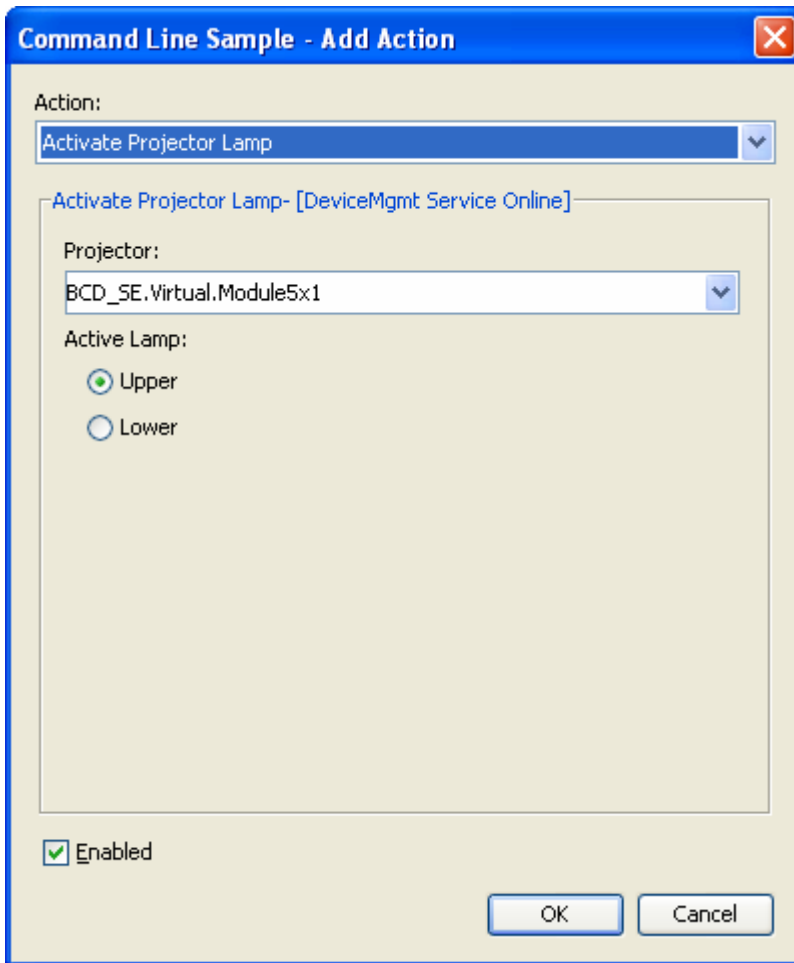
These are the *.ini-files related to the streaming video: viewersource.ini, DigitalStreamSource.ini, EncoderTypes.ini

Selecting this option will populate the Viewer List with all **FRG Viewers** defined in this project which are connected to a StreamingVideo card.

Select the desired FRG Viewer. Subsequently the **Sources** list box will show all defined sources for this Viewer. Select the desired source.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Activate Projector Lamp



This action refers to all dual lamp projectors as included in the project.

The **Projector** list box will show the name of all the respective projectors as assigned by the Control Room Configurator.

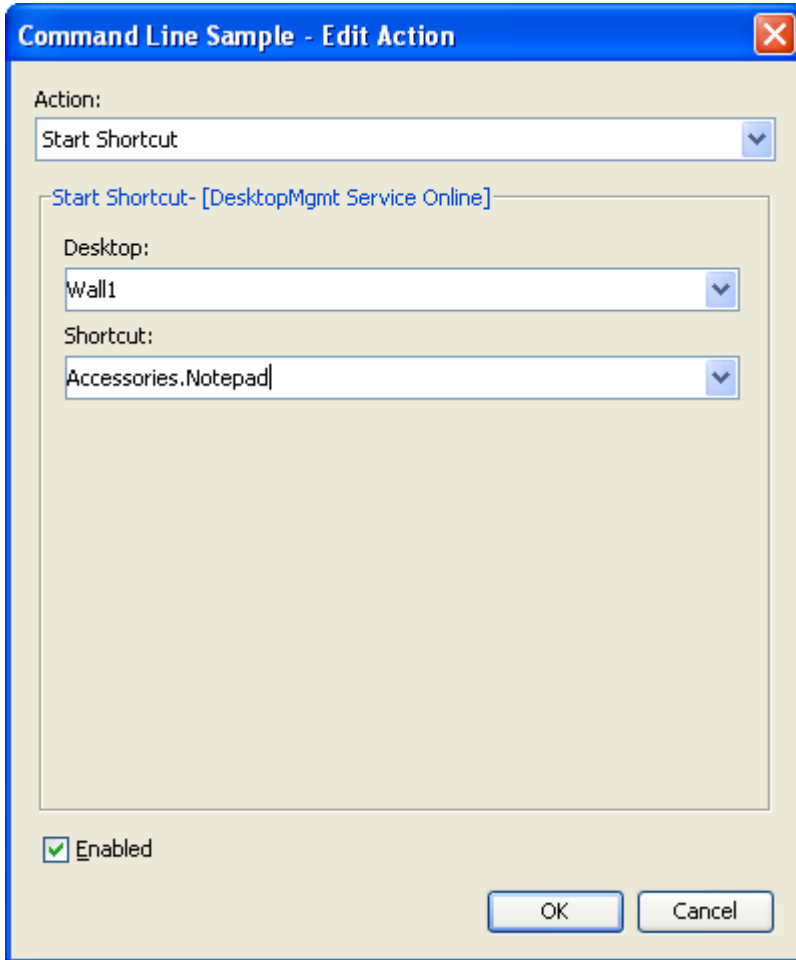
Select the desired projector.

Subsequently the dialog will show the currently active lamp: if the upper lamp is active, the radio button **Upper** is selected, in case the bottom lamp is active, the radio button **Lower** is selected.

Change the active lamp by selecting the other radio button, or just quit the dialog by clicking OK to confirm the current status.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

Start Shortcut



This action is related to the shortcut defined in the layout database of the project.

Selecting this action will populate the **Desktop** list box with all Desktop Servers of the project.

When the Desktop Server is selected, the **Shortcut** list box shows all available shortcuts. Select the desired shortcut from the list.

If the **Enabled** checkbox is cleared, the action is deactivated and shows up grayed out in the action sequence list.

5.2.1.2 Modify actions (🔧)

Select an action sequence and click on the modify button to change it according your needs. The **modify** command gives access to the same dialogs and functionalities as the **add** command. To learn about the entries and controls of the dialogs, please see the description of the respective dialog in the chapter **Add actions**,

5.2.1.3 Delete actions (✖)

Select the action to be deleted and click on the red cross. A dialog pops up asking for confirmation. If accepted, the action will be deleted.



In case you "temporarily" want to delete an action, it is sufficient to disable it: Select the action, click on the modify button, and clear the Enable checkbox at bottom of the action sequence dialog.

5.2.1.4 Move an action up () or down () in the sequence

To change the sequence the actions are executed, select the action, and move it using the **up** button or the **down** button, respectively.

5.2.2 Trigger

As already mentioned, loading a scenario does not necessarily means starting it. It can be started (and paused/stopped) manually in the **Scenario Editor**, but this manual intervention is meant e.g. for test purposes and not for standard operation.

Loading a scenario **loads** all the actions and **activates** all the triggers. As soon as a trigger **fires**, the scenario is started.

Therefore the definition of the scenario comprises not only the definition of actions, but also the definition of triggers.

5.2.2.1 Add triggers (+)

Clicking on the add buttons opens a dialog to enter **name** and **description** of the trigger. As with the name of scenarios, also the name of the trigger must not include characters with a special meaning in XML (e.g. / < >). Besides this restriction wrt characters, name and description can be freely set.



Please note that the name of the trigger has to be unique in a scenario.

Besides name and description, the **Event Type** and **Action Type** have to be specified.

These are the Event Types of a trigger:

Event type	description
Elapsed	The trigger fires when the time defined is over. Count down of the time starts when loading the scenario. The elapsed time can be zero (trigger starts instantly) or defined in hours, minutes and seconds.
Scheduled	The trigger fires when the date specified in the schedule is the current date. The date comprises time (hh:mm:ss) and day. To modify it, select the required value and increase it in steps by one using the spin button. Or highlight the entry, delete it, and enter a new one (mind the format!). To change the day, it is also possible to open the calendar control and select the desired day.
Layout Alarm	The trigger fires when a defined layout is loaded on the display wall or unloaded from the display wall. As with all layouts, the desktop server, the region and the name of the layout to fire this trigger have to be specified.

These are the **Action Types** of a trigger:

Event type	description
Action Sequence	The trigger controls the execution of the action sequences.
Trigger	The trigger fires another trigger.

5.2.2.2 -Event type

Elapsed

Define the time when the trigger fires after the scenario has been loaded.



The counter starts when the scenario is loaded!

To fire it **instantly**, let hours, minutes and seconds as zero. To fire it after a certain period, enter the desired values. Use the spin buttons to increase the values in steps by one, or directly edit the field.

If the **Enabled** checkbox is cleared, the trigger is deactivated and shows up grayed out in the trigger sequence list.

Scheduled

Define the date to fire the trigger.



The date will fire the trigger only if the trigger is active, i.e. the scenario has been loaded.

The time-stamp includes a well defined time (hours, minutes, and seconds) as well as day, month and year. To define the latter, also the calendar control next to the spin button can be used.

Highlight the item to be changed, and use the spin button to increase or decrease the selected value by one.

Or just enter the desired time or date directly in the field. Mind the format!

If the **Enabled** checkbox is cleared, the trigger is deactivated and shows up grayed out in the trigger sequence list.

Layout Alarm

Command Line Sample - Add Trigger

Trigger Name:
Trigger2

Description:

Event Type:
Layout Alarm

Action Type:
ActionSequence

Layout Alarm- [DesktopMgmt Service Online]

Desktop:
Wall1

Region:
<default>

Layout:
AllViewers

Trigger on Layout:
☒ Activation
☐ Deactivation

Action Sequence

☒ Start
☐ Pause
☐ Stop
☐ Restart
☐ Go To

Execute 'cmd /c Start_Scenario.cmd...

☒ Enable

OK Cancel

A trigger can also be fired when a layout is activated or deactivated. This mechanism is called layout alarm.

If the Scenario Configurator is online, all Desktop Servers connected show up in the list. Select the desired Desktop Server.

After the Desktop Server is selected, the region list box is populated with all regions defined for this desktop server. Select the desired region. Subsequently the layouts defined for this region can be selected from the **Layout** list.

Specify if the trigger fires when the selected layout is loaded (**Activation**) or unloaded (**Deactivation**).

If the **Enabled** checkbox is cleared, the Trigger is deactivated and shows up grayed out in the Trigger sequence list.

5.2.2.3 Action Type

Every trigger can fire an action or another trigger. This is selected in the **Action Type** list box.

Action Sequence

If the target for the trigger is an Action Sequence, it can be defined what will happen with it:

Start	This will resume executing the action list where it has been stopped
Pause	This will pause executing of the action list
Stop	This will stop executing the action list
Restart	This will restart the execution of the action sequence (start the first action)
Go To	Define the action which should be started by the trigger from the list (the entries of the list box show all actions defined in the scenario).



The effects of Start, Pause, Stop depend on the execution of the scenario itself, e.g. if the scenario action waits for 2 hours, and a trigger fires "Pause", then nothing will happen.

Trigger

If **Trigger** is selected, the respective list box is populated with all triggers defined in the scenario.

Select the desired trigger, and assign one of the following actions to it:

Enable	In case the selected trigger is disabled, it will be enabled. In case it is already enabled, nothing will happen.
Disable	In case the selected trigger is enabled, it will be disabled. In case it is already disabled, nothing will happen.



As with the event type, it depends on the actual status of the selected trigger what will really happen.

5.2.3 Timeline

Use **Timeline** to define when the scenario is loaded. Please note: loading a scenario does not necessarily start it!



Loading a scenario loads all action sequences and make all triggers "live". As soon as a trigger fires, the actions will start.

To start a scenario immediately when being loaded, the trigger event type can be set to elapsed with zero hours/minutes/seconds.

Timeline offers multiple options to manipulate loading a scenario. Run Frequency can be set to **Manually, Once, Hourly, Daily, Weekly, Monthly**. Depending on the selection, the frequency has to be further specified.

Depending on the Run Frequency, the **Start Up** time has to be entered (time when the scenario is loaded), the **Shut Down** time (time when the scenario is unloaded, default: never), and the **duration of one occurrence**. If a contradiction occurs, the entry is not accepted. Instead a warning pops up informing about the contradiction, e.g. **Shut Ddown** time is earlier than **Start Up** time...

TestLayout - TimeLine

Run Frequency:

- Manual
- Once
- Hourly
- Daily
- Weekly
- Monthly

Start Up

At:

11: 47: 5

July 14, 2006

Shut Down

☒ Never

☐ After:

2 Occurrences

☐ At:

11: 47: 5

July 14, 2006

Duration of One Occurrence

0 Minutes

0 Hours

0 Days

OK Cancel

5.2.3.1 Manual

In **Manual** mode, the scenario is started by clicking on the **Start** button in the Scenario Configurator. It's obvious that no Start Up time has to be defined. The scenario will stop after the actions are executed once, so neither **Shut down** time has to be specified nor the **Duration of One Occurrence**.

The screenshot shows the 'TestLayout - TimeLine' dialog box. The 'Run Frequency' dropdown is set to 'Manual'. The 'Schedule Manual' section on the left contains the text 'No settings required.' The 'Start Up' section on the right has 'At:' set to '11: 47: 51' and 'July 14, 2006'. The 'Shut Down' section has the 'Never' radio button selected. The 'Duration of One Occurrence' section has '0' minutes, '0' hours, and '0' days.

TestLayout - TimeLine

Run Frequency:
Manual

Schedule Manual
No settings required.

Start Up
At:
11: 47: 51
July 14, 2006

Shut Down
☒ Never
☐ After:
2 Occurrences
☐ At:
11: 47: 51
July 14, 2006

Duration of One Occurrence
0 Minutes
0 Hours
0 Days

OK Cancel

5.2.3.2 Once

If **Once** is selected, the scenario is loaded at the **Start up** time. Define the **Start Up** time using the spin buttons, calendar control or directly edit the fields. Since its run frequency is only once, no duration of one occurrence has to be specified, and of course the number of occurrences cannot be entered either.

In case you want the scenario being unloaded, unselect **Never** in the **Shut Down** frame, and enter time and day for the scenario to stop by using the spin buttons, the calendar control or by directly editing the respective fields.

Please note that the spin button always affect the selected item. If the entire field is selected, the selection will be reduced to the first item (e.g. month, or hour).

TestLayout - TimeLine

Run Frequency:
Once

Schedule Once
Set Start Up and Shut Down settings for Once Mode.

Start Up
At:
11: 47: 5
July 14, 2006

Shut Down
☒ Never
☐ After:
2 Occurrences
☐ At:
11: 47: 5
July 14, 2006

Duration of One Occurrence
0 Minutes
0 Hours
0 Days

OK Cancel

5.2.3.3 Hourly

If **Hourly** is selected, the scenario does not necessarily have to be loaded every hour. Hourly simply means that the timely distance between two occurrences is less than a day.

Define the timely distance between two occurrences by using the spin button of the **Hours** field. In case you want to limit the occurrences to a certain quantity, tick the **For** checkbox and enter the quantity in the **Times/Day** field.

Example: if reoccurrence is every two hours, the scenario could be loaded 12 times a day. To reduce this frequency, you may e.g. enter 3 Times/Day.

Define the **Start up** time (time and date) when the scenario will be loaded for the first time. In case you want the scenario being unloaded, unselect **Never** in the **Shut Down** frame, and define the **Shut down** time, as well as the duration of one occurrence. This duration will be evaluated – it is not possible to have duration of e.g. 16 hours and to load a scenario 3 times a day. An error message would pop up.

Please note that the spin button always affect the selected item. If the entire field is selected, the selection will be reduced to the first item (e.g. month, or hour).

TestLayout - TimeLine

Run Frequency:
 Hourly

Schedule Hourly

Every:
 1 Hours

For
☐ 2 Times/Day

Start Up

At:
 11: 47: 51
 July 14, 2006

Shut Down

☒ Never
☐ After:
 2 Occurrences
☐ At:
 11: 47: 51
 July 14, 2006

Duration of One Occurrence

0 Minutes
 0 Hours
 0 Days

OK Cancel

If **Daily** is selected, the scenario does not necessarily have to be loaded every day. Daily simply means that the timely distance between two occurrences is less than a week.

5.2.3.4 Daily

Define the timely distance between two occurrences by using the spin button of the **Days** field. Or select **Every Weekday**: then the scenario will be reloaded for the second time 7 days after it has been loaded (defined as Start Up time).

Example: the Startup time is January 5, 2005. This has been a Wednesday. So if **Every Weekday** is checked, the scenario will be run always on Wednesday.

Define the **Start up** time (time and date) when the scenario will be loaded for the first time. In case you want the scenario being unloaded, unselect **Never** in the **Shut Down** frame, and define the **Shut down** time, as well as the duration of one occurrence. This duration will be evaluated – it is not possible to have duration of e.g. 30 hours and to load a scenario daily. An error message would pop up.

Please note that the spin button always affect the selected item. If the entire field is selected, the selection will be reduced to the first item (e.g. month, or hour).

TestLayout - TimeLine

Run Frequency:
Daily

Schedule Daily

☒ Every:
1 Days

☐ Every Weekday

Start Up

At:
11: 47: 5
July 14, 2006

Shut Down

☒ Never

☐ After:
2 Occurrences

☐ At:
11: 47: 5
July 14, 2006

Duration of One Occurrence

0 Minutes
0 Hours
0 Days

OK Cancel

5.2.3.5 Weekly

If **Weekly** is selected, the scenario does not necessarily have to be loaded every week. Daily simply means that the timely distance between two occurrences is less than a month.

Define the timely distance between two occurrences by using the spin button of the **Weeks** field. In addition you can specify on which day(s) of the week the scenario will be run. If this checkbox is ticked, the list of week days is shown. Check the desired days.

Define the **Start up** time (time and date) when the scenario will be loaded for the first time. In case you want the scenario being unloaded, unselect **Never** in the **Shut Down** frame, and define the **Shut down** time, as well as the duration of one occurrence. This duration will be evaluated – it is not possible to have duration of e.g. 30 hours and to load a scenario daily. An error message would pop up.

Please note that the spin button always affect the selected item. If the entire field is selected, the selection will be reduced to the first item (e.g. month, or hour).

The screenshot shows the 'TestLayout - TimeLine' dialog box. The 'Run Frequency' dropdown is set to 'Weekly'. Under the 'Schedule Weekly' section, 'Every:' is set to '1' weeks. The checkbox 'On the days of the week below:' is checked, and the days listed are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday, all of which are unchecked. The 'Start Up' section shows 'At:' with a time of '11: 47: 5' and a date of 'July 14, 2006'. The 'Shut Down' section has 'Never' selected. The 'Duration of One Occurrence' section shows '0' minutes, '0' hours, and '0' days. 'OK' and 'Cancel' buttons are at the bottom.

5.2.3.6 Monthly

If **Monthly** is selected, the scenario does not necessarily have to be loaded every month. Monthly simply means that the timely distance between two occurrences is less than a year.

Define the detailed schedule. The schedule can be set defining e.g. the 10th day of every third month, or the 20th day of every March. You may even set the day as first weekday or third Sunday of a month or as fourth Thursday every February.

Define the **Start up** time (time and date) when the scenario will be loaded for the first time. In case you want the scenario being unloaded, unselect **Never** in the **Shut Down** frame, and define the **Shut down** time, as well as the duration of one occurrence.

Please note that the spin button always affect the selected item. If the entire field is selected, the selection will be reduced to the first item (e.g. month, or hour).

TestLayout - TimeLine

Run Frequency:
 Monthly

Schedule Monthly

☒ Day
 1 of

☐ Every:
 1 Months

☒ Every:
 January

☐ The
 First of
 Day of

☒ Every:
 1 Months

☐ Every:
 January

Start Up

At:
 11: 47: 5
 July 14, 2006

Shut Down

☒ Never

☐ After:
 2 Occurrences

☐ At:
 11: 47: 5
 July 14, 2006

Duration of One Occurrence

0 Minutes
 0 Hours
 0 Days

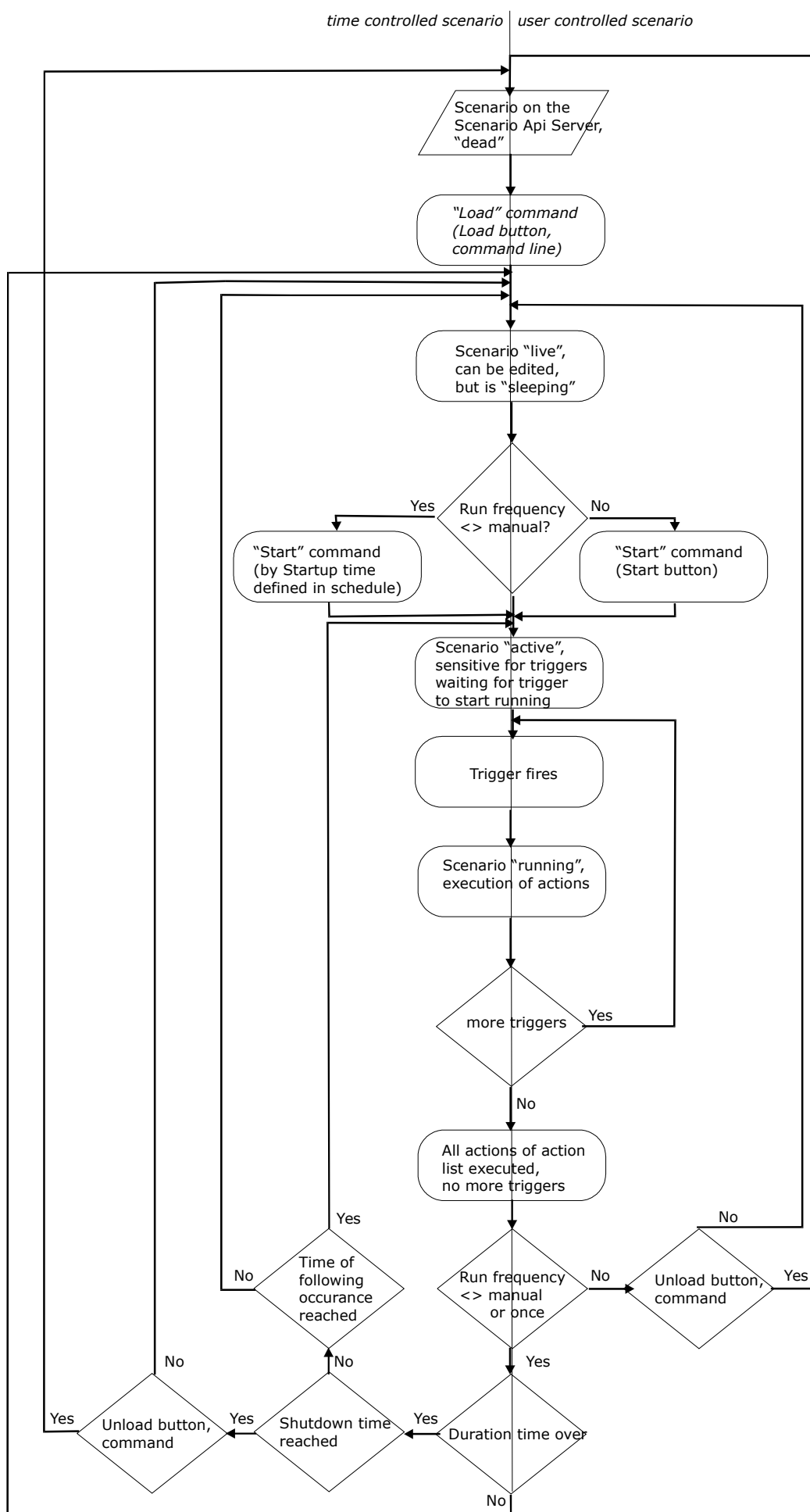
OK Cancel

6 Use cases

The following chapter explains the sample scenarios.

6.1 Overview

Before explaining some use cases of a scenario, the sequence in the process flow of a scenario are to be familiar with. Look at the flow chart to get a better knowledge of the scenario specific terms.



6.2 Use case: Operation mode of a display wall

Let's assume:

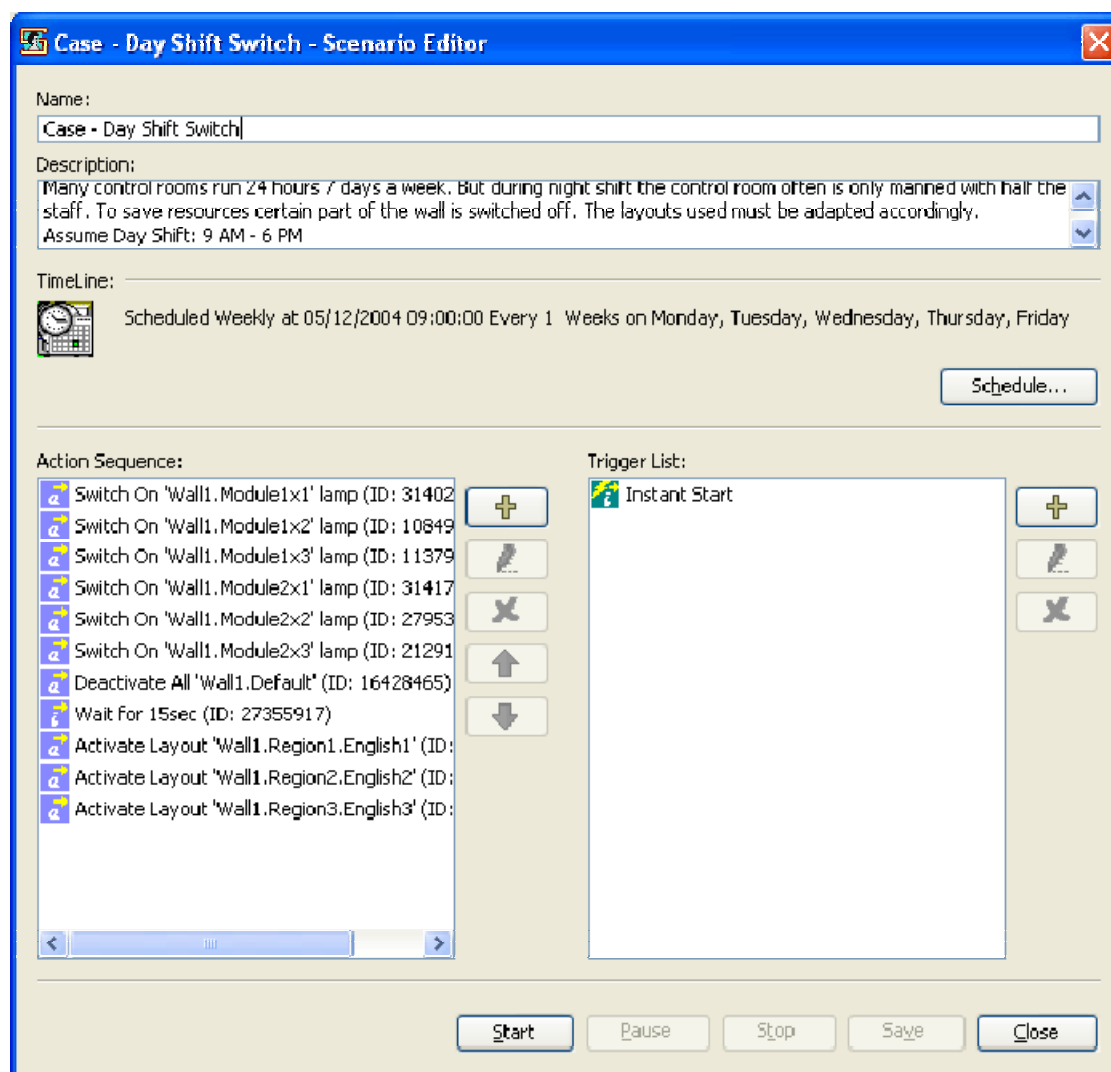
A display wall is setup of 2 rows and 3 columns. At day, the entire display is used. During night, only the first column is used.

The display wall is not run in 24/7 operation, but shutdown during weekend: The projectors will be switched off after Friday night (= Saturday morning at 9AM), and switched on again on Monday morning at 6 AM (a time which is during the night operation mode, so only the first column will be switched on)

This results in the scenarios depicted in the following four sub chapters.

6.2.1 Day shift

Timeline of the Scenario	every week on Monday, Tuesday, Wednesday, Thursday, Friday.
Startup time of the day scenario	9AM
Operation time of day	9 AM - 6PM.
Duration of the day scenario	9 hours (until 6PM, when the night shift occurs)



Explanation:

To make sure that all projection modules of this display wall are switched on, the scenario starts with sending the "switch on" command to every projector. In case the projector had been switched off due to power loss or service works, it is switched on. In case it is already/still running, nothing happens.

Subsequently the command to unload all layouts is sent. This command ensures that the display wall is in a known ("empty") state. Even if the projectors had not been running when the scenario started and had only switched on by the scenario, it might be that the controller (and thus a layout setting) was still running. Therefore it is wise to first unload all layouts to bring the display wall in a defined state.

Subsequently the desired layout is loaded into the respective regions.

6.2.2 Night shift

Timeline of the Scenario	every week on Monday, Tuesday, Wednesday, Thursday, Friday.
Startup time of the day scenario	6PM
Operation time of day	6PM - 9AM.
Duration of the day scenario	15 hours (until 9 AM, when the day shift occurs)

Case - Night Shift Switch - Scenario Editor

Name: Case - Night Shift Switch

Description: Many control rooms run 24 hours / days a week. But during night shift the control room often is only manned with half the staff. To save resources certain part of the wall is switched off. The layouts used must be adapted accordingly. Assume Night Shift: 9 PM - 6 AM

TimeLine: Scheduled Weekly at 05/12/2004 21:00:00 Every 1 Weeks on Monday, Tuesday, Wednesday, Thursday, Friday

Schedule...

Action Sequence:

- Switch Off 'Wall1.Module1x1' lamp (ID: 3872307)
- Switch Off 'Wall1.Module1x2' lamp (ID: 1982590)
- Switch Off 'Wall1.Module1x3' lamp (ID: 1853796)
- Switch On 'Wall1.Module2x1' lamp (ID: 1473691)
- Switch On 'Wall1.Module2x2' lamp (ID: 1811204)
- Switch Off 'Wall1.Module2x3' lamp (ID: 3361977)
- Deactivate All 'Wall1.Default' (ID: 32641298)
- Wait for 15sec (ID: 20886973)
- Activate Layout 'Wall1.Region1.English1' (ID: 89)

Trigger List:

- Instant Start

Start Pause Stop Save Close

Explanation:

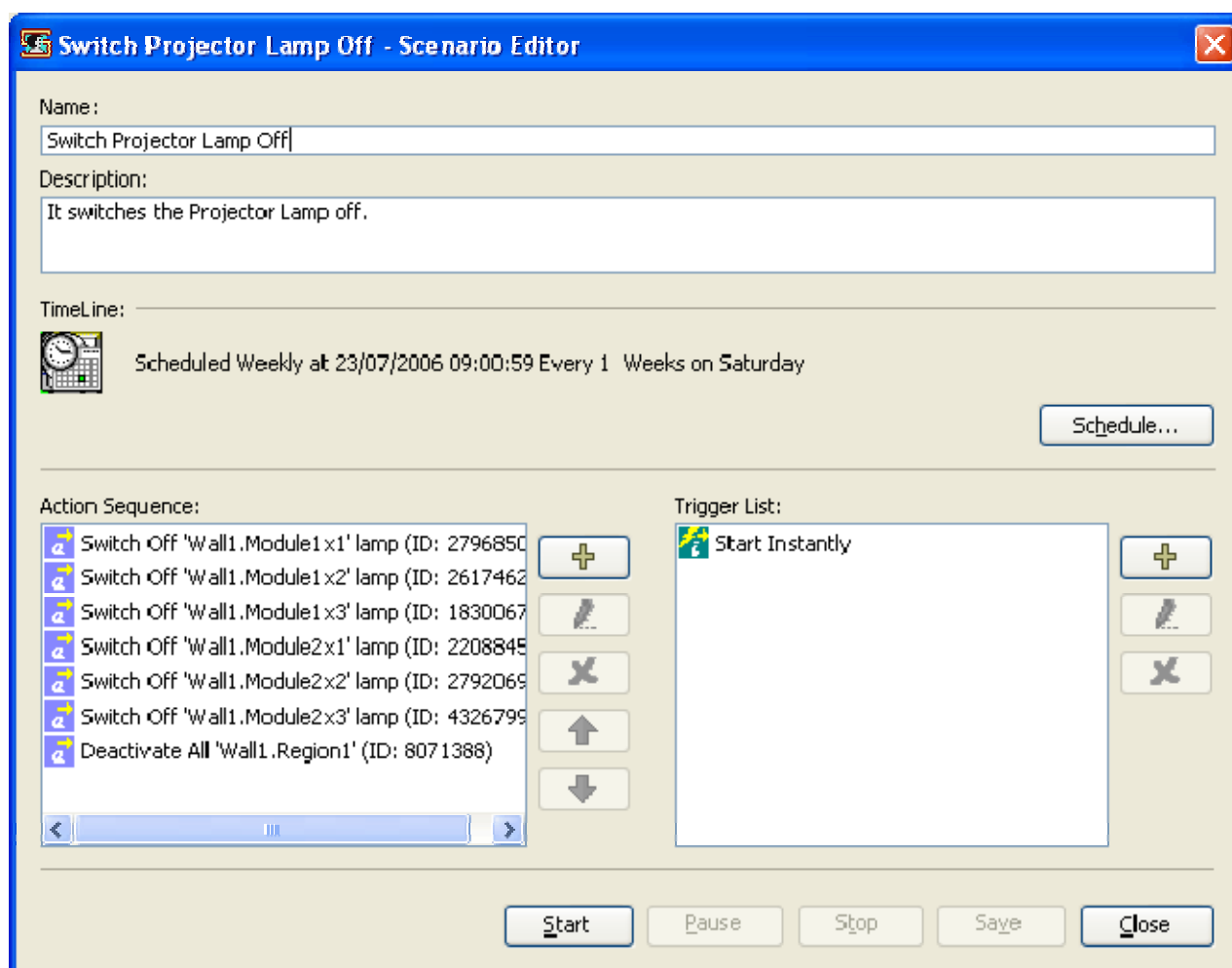
During night shift, not the entire display wall but only row should be switched on. Therefore the scenario starts with sending the "switch off" command to the projectors of the first row and to the last projector of the second row. To make sure that two of the projectors are running, they are explicitly switched on.. In case the projectors had been switched off due to power loss or service works, this command ensures that they are running as soon as they are powered on. In case they are already/still running, nothing happens.

Subsequently the command to unload all layouts is sent. This command ensures that the display wall is in a known ("empty") state. Even if the projectors had not been running when the scenario started and had only switched on by the scenario, it might be that the controller (and thus a layout setting) was still running. Therefore it is wise to first unload all layouts to bring the display wall in a defined state.

Subsequently the desired layout is loaded into the desired region.

6.2.3 Switch Projector lamp off

Timeline of the Scenario	every week on Saturday Morning
Startup time of the day scenario	9AM (after the duration of the night scenario started on Friday evening)
Duration of the day scenario	45 hours (until the projectors are to be switched on again on Monday morning, 6AM)



Explanation:

The entire display wall is switched off during weekend. The weekend starts when the Friday night shift is over. During the night shift, only two projectors are running (2x1, 2x2).

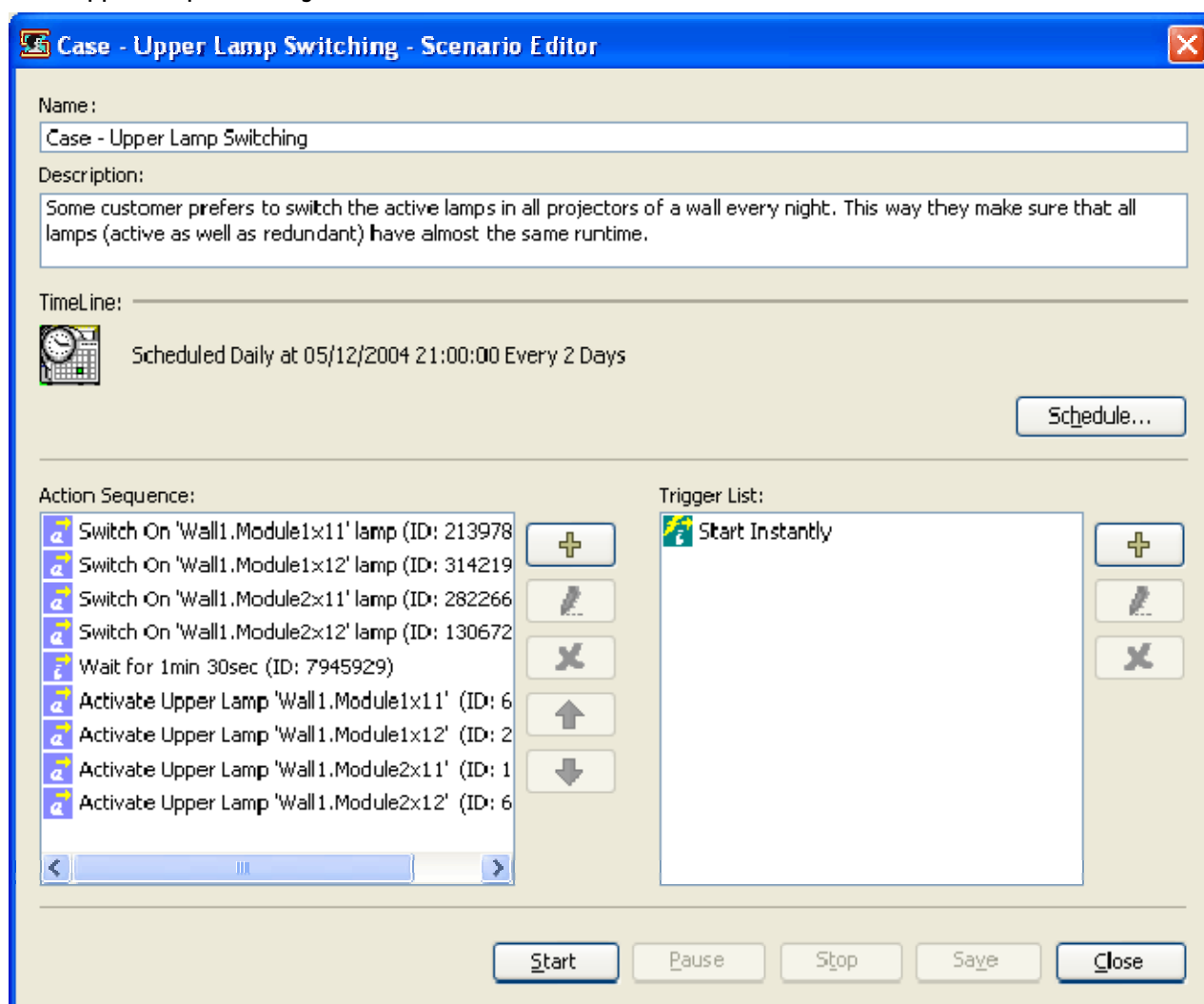
It might happen that although the other projectors should be off they are running (due to manual intervention). To make sure that the display wall is really switched off, the "switch off" command is also sent to these projectors..

The scenario also ensures that if a projector is switched on during weekend (duration time of scenario) it is switched off again.

6.3 Use case: change active lamp

In case the dual lamp projectors are to change their active lamp in regular intervals (to ensure that both lamps have about the same runtime and show the same aging effects), the active lamp might be switched every week. This is realized by two scenarios: one activates the upper lamp, one the lower lamp. Since the switch should take every week, every scenario has a run frequency of every second week and a duration time of one week.

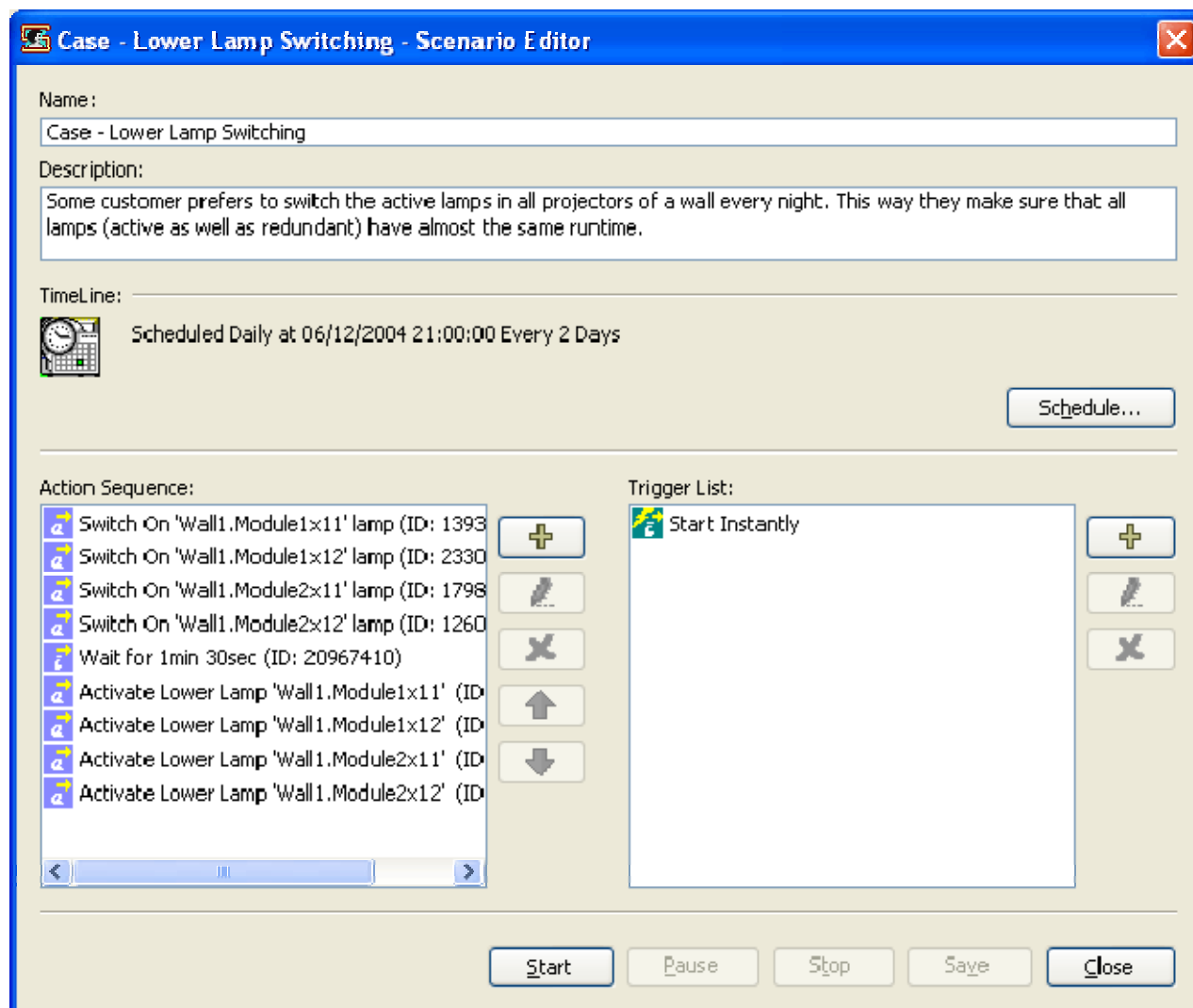
6.3.1 Upper lamp switching



It has to be ensured that all the projectors of the display wall are in operation mode and not in standby. Therefore the projectors are switched on first. Then the display wall is in a well-defined and known status (all on), and the upper lamps can be activated.

In case the projectors are on when receiving the command "switch on", nothing happens.

6.3.2 Lower Lamp Switching



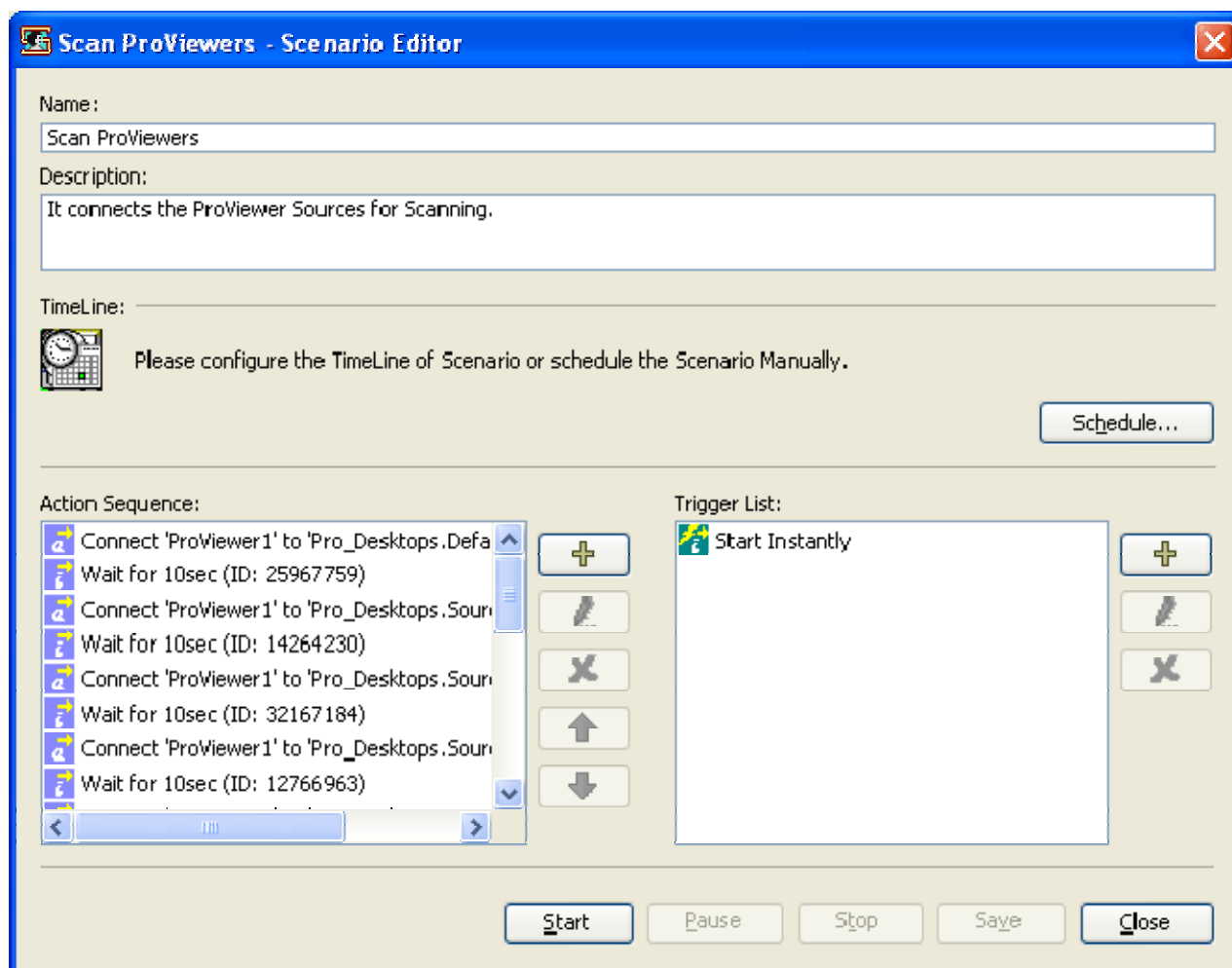
It has to be ensured that all the projectors of the display wall are in operation mode and not in standby. Therefore the projectors are switched on first. Then the display wall is in a well-defined and known status (all on), and the lower lamps can be activated.

In case the projectors are on when receiving the command "switch on", nothing happens.

6.4 Use case: scan viewer

A layout might comprise many viewer windows. However when the layout is started, the viewer is connected to the source defined as default source in the viewersources.ini file of Apollo. The viewer then can be connected to a different source "statically", or it can be connected in turn to all sources defined in the viewersources.ini-file. Thus the list of action will include the **Connect** action.

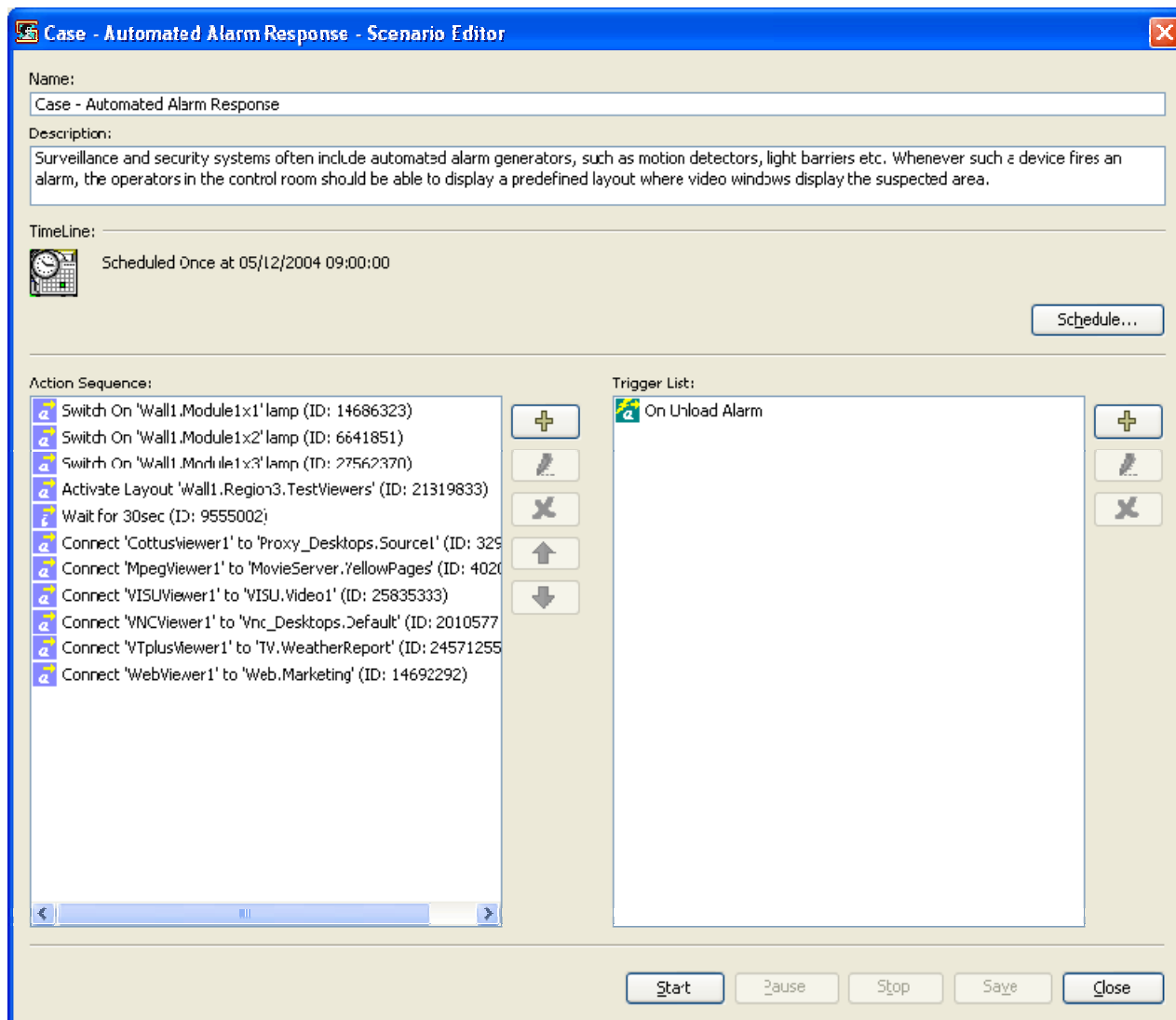
In the screen shot you can see how to scan five different sources defined for th ProViewer. Since the sources are changed every 10 seconds, this scenario serves for checking if the sources are available and can be connected.



6.5 Use case: automated alarm response

The Automated Alarm Response first switches on all projection modules of the first row. In case a projector has been switched off (by accident or during night shift), it is switched on again. In case it is on, nothing happens.

Subsequently a layout is loaded and viewers connected to the respective sources.



7 Troubleshooting

Check this chapter for help.

7.1 How to check for the ScenarioApiServer

The Apollo – Scenario Configurator connects to the ScenarioApiServer. In case the server is not available, the application cannot be launched.

To check if the server is online,

- Open the command prompt
- Subsequently enter the commands:
Ping ScenarioApiServer
Ping ApolloApiServer

If the server answer, they are running and connected.

If there is no response, navigate to...Windows\System32\drivers\etc.

Edit the file **Hosts** and check the IP addresses for the ApolloApiServer and the ScenarioApiServer.

Verify the addresses. If required, adjust them. If they are correct: call the IT Administrator to look for the TransForm A where the ApolloApiServer and the ScenarioApiServer are installed.

7.2 How to remove a Java Web Start Application

In case of a previous installation of Apollo Scenario Configurator 1.0, and in case the title bar of the Configurator Window does not show version 1.1, the automatic update of the Java Web Start application failed.

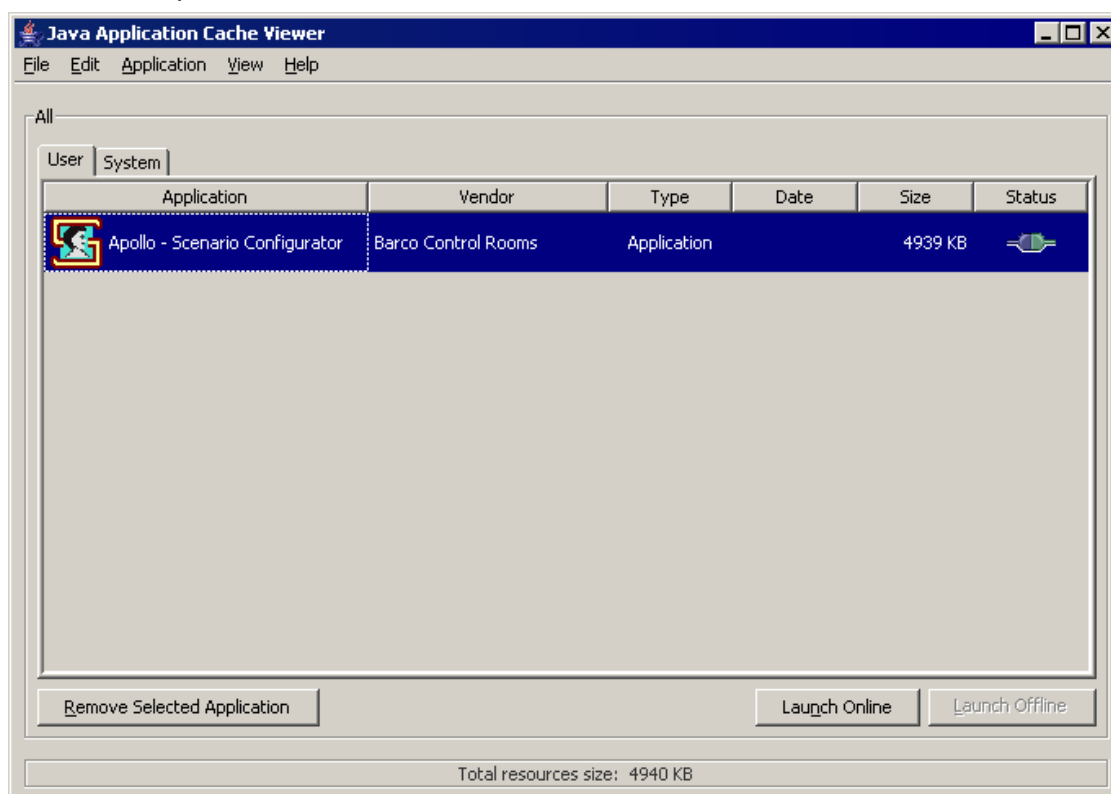
It then is recommended to remove the previous version of Apollo – Scenario Configurator manually to force the system to look for a new version.

Every Java web start application maintains a cache on the client computer. When upgrading from Scenario Management 1.0 to Scenario Management 1.1, Scenario Management 1.0 has to be deleted from the cache:

Browse to the Java Runtime installation folder (in case you used the default path: C:\Program Files\Java\JRE1.5.0_xx) and open the subfolder bin.

In this subfolder there is an application javaws.exe (java web start).

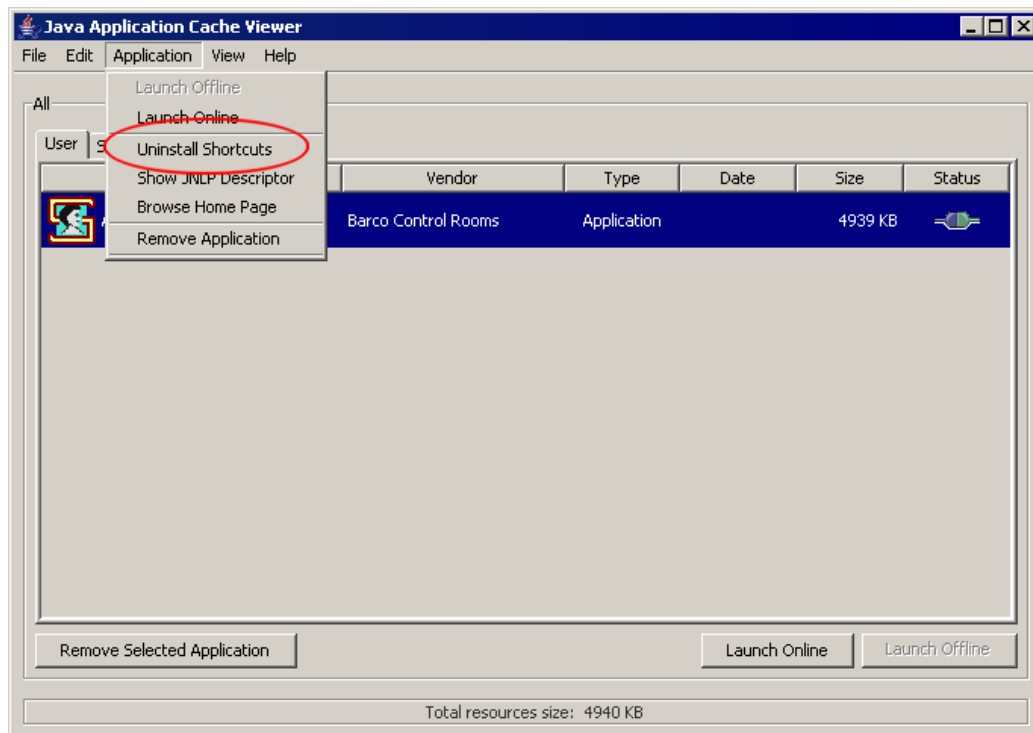
Double click on this exe-file. The Java Application Cache Viewer pops up and shows the web start application clients of this system.



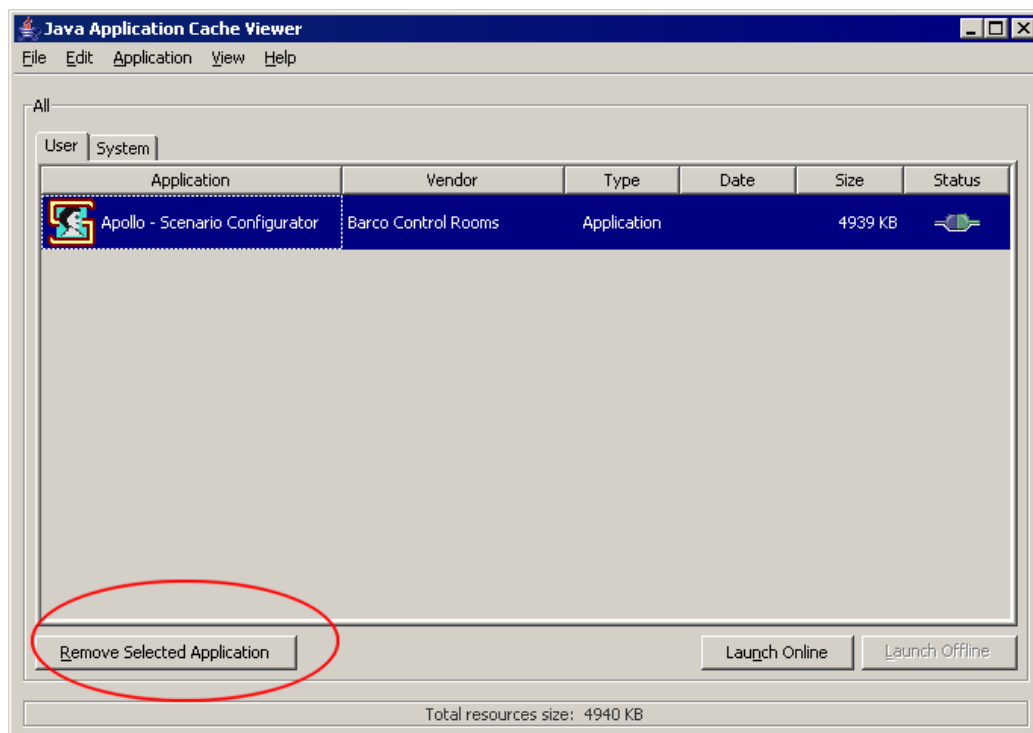
Select **Apollo – Scenario Configurator**.

Before removing this application, it is recommended to remove the shortcut associated with it.

Select **Application|Uninstall Shortcuts**. This will remove the respective shortcut from the desktop and the **Start** menu.



Subsequently click on **Remove Selected Application**.



Clicking on **Remove Selected Application** will remove the application from the system. The respective entry in the Java Application Cache Viewer is removed.

To install the new version of the Scenario Configurator,

- Launch the Internet Explorer
- In the address bar, enter the URL:
`http://ScenarioApiServer:8080/ConfiguratorLauncher/Launcher.jnlp`

This will install the Apollo - Scenario Configurator as Web Start Application and install the respective shortcuts.

You can check the installation using the Java Application Cache Viewer, see above. A new entry of Scenario Configurator is added.

7.3 Tomcat service setting: Allow service to interact with the desktop

When configuring Tomcat, on the **Log On** tab there is a checkbox "Allow service to interact with the desktop".

If this checkbox is checked, starting Tomcat will show the Tomcat console in a command prompt window. If this window is closed by accident, the service will stop.



To avoid an unintentional shut down of the Tomcat Server, we recommend NOT to allow the service to interact with the desktop.

However, if you create scenarios which want to trigger a "Notepad" window, you have to allow the service to interact with the desktop. Otherwise the Notepad process will be created and started, but there won't be a Notepad window since the service is not allowed to interact with the desktop.



Therefore whenever you need desktop integration, you have to allow the service to interact with the desktop. But please keep in mind NOT to close the command prompt window of the service!!!

7.4 Log files

In case the default installation path has been used, the Tomcat log files can be found on
C:\Program Files\Apache Software Foundation\Tomcat 5.5\logs\systinet.log

The default logging configuration creates log files of at max. 10MB and (at max.) 10 backup files. A new log file is created as soon as the size of 10MB is exceeded.

The logging configuration can be modified by editing the file

C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\systinet\conf\log4j.config.

For the entries and their setting, cf. also this file.

7.5 Hot Line

Feel free to contact us if you have any further questions!

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